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City of Boston.

DEPARTMENT OF PARKS.

TWELFTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

FOR THE

YEAR 1886.

PRINTED FOR THE DEPARTMENT.

1887.

DEPARTMENT OF PARKS.

REPORT.

To the Honorable the City Council of the City of Boston: —

Section 15 of the Act of 1875, Chapter 185, entitled "An Act for the laying out of Public Parks in or near the City of Boston," requires that the Board of Park Commissioners "shall annually, in the month of January, make to the City Council of Boston a full report of its doings for the preceding year, including a detailed statement of all their receipts and expenditures."

In accordance therewith the Board has the honor to submit the following report: —

FINANCIAL STATEMENTS.

I.

Receipts and Expenditures of the Department for the Year 1886.

BACK BAY.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885	\$6,639 57
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No payments have been made on this account during 1886.

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1885	\$517 05	
Amount transferred from Income Account	6,042 91	
	<u> </u>	\$6,559 96

EXPENDITURES FOR CONSTRUCTION.

Excavating, Grading, Loam, and General Work.

Superintendence and general work	. \$2,125 34	
Dredging, labor, and materials	. . 488 07	
Grading, labor, and materials	. . 156 22	
Engineering expenses	. . . 21 45	
	—————	\$2,791 08

Plans and Designs.

F. L. Olmsted, Landscape Architect	. . .	750 00
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Plantations.

Labor and expenses	260 24
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Sidewalks, Gutters, and Drainage.

Paving-blocks	\$102 70
Setting curb-stones and paving gutters	4 44
Curb-stones	. . . . .	2 80
	—————	109 94

Agassiz Bridge.

Expenses of construction, labor, and materials	. . . . .	55 20
	—————	\$3,966 46

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and expenses	. . . . .	\$2,337 00
Paid Police Department	. . . . .	234 00
Signs and notices	. . . . .	22 50
	—————	2,593 50
		—————
		\$6,559 96

RIVERDALE.

[Muddy River Improvement.]

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885	\$105,648 88
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Expenditures.

Amount paid for land in 1886	\$1,500 00
Balance unexpended, Dec. 31, 1886	104,148 88
	—————	\$105,648 88

ARNOLD ARBORETUM.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885	.	.	.	\$30,598 15	
Public Park Loan, issued April 29, 1886	.	.	.	4,000 00	
" " " June 15, 1886	.	.	.	16,000 00	
				<hr/>	\$50,598 15
					<hr/>

Expenditures.

Amount paid for land in 1886	.	.	.	\$50,530 86	
Balance unexpended, Dec. 31, 1886	.	.	.	67 29	
				<hr/>	\$50,598 15
					<hr/>

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1885	.	.	.	\$426 31	
Amount transferred from Income Account	.	.	.	1,903 96	
				<hr/>	\$2,330 27
					<hr/>

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Expenses of construction	.	.	.	\$221 66	
Fuel, supplies, carting, etc.	.	.	.	13 95	
Engineering expenses	.	.	.	166 16	
				<hr/>	\$401 77

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of men	\$1,066 18
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Care of Grounds and Buildings.

Watchmen, labor, and expenses	.	.	.	837 78	
				<hr/>	1,903 96
Balance unexpended, Dec. 31, 1886	.	.	.	24 54	
				<hr/>	\$2,330 27
					<hr/>

FRANKLIN PARK.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885	.	.	.	.	\$251,663 26
					<hr/>

Expenditures.

Amount paid for land in 1886	.	.	.	\$142,818 42	
Balance unexpended, Dec. 31, 1886	.	.	.	109,844 84	
				<hr/>	\$251,663 26
					<hr/>

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1885	.	.	.	\$109 80	
Amount transferred from Income Account	.	.	.	8,108 81	
				<hr/>	\$8,218 61

EXPENDITURES FOR CONSTRUCTION.*Terrace Wall.*

Labor and expenses	.	.	.	\$65 00	
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General Work.

Superintendence and general work	.	.	.	\$229 83	
Engineering expenses	.	.	.	2 94	
Coach-hire	.	.	.	46 00	
				<hr/>	278 77

Plans and Designs.

Heliotyping and printing plans for report and general delivery	.	.	.	\$1,034 60	
Landscape Architect and expenses	.	.	.	761 75	
				<hr/>	1,796 35
				<hr/>	\$2,140 12

EXPENDITURES FOR MAINTENANCE.*Park Police.*

Pay of men	.	.	.	\$4,007 74	
Equipments and supplies	.	.	.	107 64	
				<hr/>	\$4,115 38

Care of Grounds and Buildings.

Labor in care of grounds and buildings	.	.	.	\$1,324 51	
Expenses in care of grounds and buildings	.	.	.	629 80	
				<hr/>	1,954 31
				<hr/>	6,069 69

EXPENDITURES FOR BETTERMENTS.*Betterment Expenses.*

Advertising	.	.	.	.	.	8 00	
Balance unexpended, Dec. 31, 1886.	.	.	.	.	.	80	
						<hr/>	\$8,218 61

CHARLES RIVER EMBANKMENT.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885 . . .	\$237 20	
Public Park Loan, issued Nov. 1, 1886 . . .	55,000 00	
	<hr/>	\$55,237 20

Expenditures.

Amount paid for land in 1886	\$55,123 65	
Balance unexpended, Dec. 31, 1886	113 55	
	<hr/>	\$55,237 20

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1885	\$68,823 71	
Amount transferred from Income Account	1,963 94	
	<hr/>	\$70,787 65

EXPENDITURES FOR CONSTRUCTION.

Sea-wall and Filling.

Amount paid under contract with	
Parker & Sylvester	\$62,858 16
Surveyors and Assistants	4,316 50
Labor	1,379 48
Engineering expenses and incidentals	232 13
Coach-hire	6 00
	<hr/>
	\$68,792 27

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Repairs and care of buildings	1,963 94	
Balance unexpended, Dec. 31, 1886	31 44	
	<hr/>	\$70,787 65

MARINE PARK.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1885	\$27 43	
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Transferred to Incidental Expenses, City Account, April 19, 1886, by order of the City Council.

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1885	\$17,793 26	
Amount transferred from Income Account	1,959 81	
	<hr/>	\$19,753 07

EXPENDITURES FOR CONSTRUCTION.*Structures.*

Amount paid under contract with Benj.

Young for temporary pier . . . \$11,633 44

Amount paid under contract with O'Con-

nor & Co., for wooden shelter . . . 2,600 00

Refectory building and plank-walk . . 1,242 22

Gas-lights, labor, and supplies . . . 1,003 13

Inspection and Engineering expenses . . 530 69

\$17,009 48*General Work.*

Superintendence and general work . . \$201 06

Coach-hire 5 00

206 06

\$17,215 54**EXPENDITURES FOR BETTERMENTS.***Betterment Expenses.*

Advertising 8 00

EXPENDITURES FOR MAINTENANCE.*Care of Grounds and Buildings.*

Watchmen and labor on grounds . . . \$1,751 93

Expenses in care of grounds . . . 207 88

1,959 81

Balance unexpended, Dec. 31, 1886 . . . 569 72

\$19,753 07**WOOD ISLAND PARK.****CONSTRUCTION AND MAINTENANCE.**

Balance unexpended, Dec. 31, 1885 \$865 55

EXPENDITURES FOR CONSTRUCTION.*Grading, Loam, and General Work.*

Grading, labor \$580 57

General work 196 18

Engineering expenses 55 47

\$832 22

Balance unexpended, Dec. 31, 1886 . . . 83 88

\$865 55

DEPARTMENT APPROPRIATION.

Balance unexpended, Dec. 31, 1885 . . .	\$998 85	
Appropriation for the financial year 1886-87 . . .	6,500 00	
Amount transferred from Income Account . . .	1,626 27	
	<u> </u>	<u>\$9,125 12</u>

GENERAL ACCOUNT.

Expenditures.

Salary of secretary and clerk . . .	\$3,000 00	
Clerical services at office, Registry of Deeds and Assessors' office . . .	1,492 50	
Printing annual report and special re- port on Franklin Park . . .	1,371 48	
Telephone and messenger service and incidentals . . .	341 98	
Office furniture and fitting up office . . .	221 80	
Seeking expert evidence in land-dam- age cases . . .	150 00	
Stationery . . .	118 20	
Expenses of Legislative Committee's visit to the parks . . .	70 00	
Coach-hire . . .	10 00	
	<u> </u>	\$6,775 96
Balance unexpended, Dec. 31, 1886 . . .	2,849 16	
	<u> </u>	<u>\$9,125 12</u>

PARK NURSERY.

Balance unexpended, Dec. 31, 1885 . . .	\$1,168 07	
Appropriation for the financial year 1886-87 . . .	5,000 00	
Amount transferred from Income Account . . .	174 58	
	<u> </u>	<u>\$6,342 65</u>

Expenditures.

Labor . . .	\$2,828 07	
Assistant Landscape Gardener . . .	2,199 96	
Expenses in care of propagating house and nursery, . . .	889 51	
Balance unexpended, Dec. 31, 1886 . . .	925 11	
	<u> </u>	<u>\$6,842 65</u>

INCOME.

Receipts.

Balance remaining, Dec. 31, 1885 . . .	\$6,820 69	
Received from rents and sale of buildings, grass, stone, and old materials . . .	16,938 65	
Received from premiums on loans . . .	190 00	
	<u> </u>	<u>\$23,949 34</u>

Payments.

Transferred to Franklin Park	\$8,108 81
Transferred to Back Bay	6,042 91
Transferred to Charles River Embankment . .	1,963 94
Transferred to Marine Park	1,959 81
Transferred to Arnold Arboretum	1,903 96
Transferred to Park Department	1,626 27
Paid into Public Park Sinking Fund	1,227 72
Transferred to Park Nursery	174 58
Balance remaining, Dec. 31, 1886	941 84
	<hr/>
	\$23,949 84

II.

Summary of Receipts and Expenditures on account of Back Bay Construction from July 23, 1877, to Dec. 31, 1886.

BACK BAY CONSTRUCTION.

Receipts.

From appropriations for Back Bay	\$1,082,179 39
From appropriations for Park Department . .	22,868 85
From Income Account	3,449 41
	<hr/>
	\$1,108,497 65

Expenditures.

Filling	\$453,577 23
Excavating, grading, loam, and general work .	277,615 48
Retaining walls, curb and fence	107,284 71
Boylston bridge	92,011 43
Beacon Entrance bridge	55,928 79
Railroad bridge	39,995 04
Plantations	19,991 52
Plans and designs	19,150 25
Office and general expenses	14,114 92
Sidewalks, gutters, and drainage	13,917 57
Machinery, tools, etc.	8,810 91
Surveying	5,472 16
Agassiz bridge	627 64
	<hr/>
	\$1,108,497 65

III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Dec. 31,
1886.*

PUBLIC PARK CONSTRUCTION AND MAINTENANCE.

Receipts.

Public Park Loan	\$2,484,000 00
Appropriations, less transfers, merged balances, and betterment expenses	1,518,118 62
Income appropriated to maintenance	44,569 09
	<hr/>
	\$4,041,687 71
	<hr/>

Disbursements.

Back Bay construction	\$1,108,497 65
Franklin Park land	990,655 16
Back Bay land	459,860 43
Charles River Embankment land	370,886 45
Marine Park land	232,972 57
Charles River Embankment construction	176,968 56
Riverdale land	95,851 12
Arnold Arboretum land	79,932 71
Arnold Arboretum construction	58,975 46
Wood Island Park land	50,000 00
Marine Park construction	40,838 54
Franklin Park construction	33,747 34
Wood Island Park construction	33,517 34
General account	32,059 85
Franklin Park maintenance	20,104 29
Park nursery	12,160 56
Charles River Embankment maintenance	5,321 41
Arnold Arboretum maintenance	4,985 81
Riverdale construction	4,000 00
Marine Park maintenance	3,020 06
Back Bay maintenance	2,593 50
Wood Island Park maintenance	49 33
Balance unexpended, Dec. 31, 1886	225,189 57
	<hr/>
	\$4,041,687 71
	<hr/>

PUBLIC PARK DEBT AND SINKING FUND.

Receipts.

Appropriations for interest on debt . . .	\$405,729 33
Received from betterments, less refunded . .	293,925 60
Appropriations for Sinking Fund . . .	278,003 00
Interest on bank deposits and investments . .	100,187 97
Income applied to the payment of debt . .	94,000 00
From Park appropriations for Betterment Ex- penses	9,677 62
Income paid into Sinking Fund	8,855 38
	<hr/>
	\$1,184,878 90

Disbursements.

Public Park Sinking Fund	\$663,684 14
Interest on Public Park debt	405,729 33
Debt cancelled by revenue and betterments .	99,000 00
Betterment expenses	9,677 62
Betterments held under protest	6,787 81
	<hr/>
	\$1,184,878 90

DEBT STATEMENT.

The Public Park Debt, Dec. 31, 1886, to be paid as it becomes due from the Resources of the Public Park Sinking Fund.

Back Bay, 4½% Loan, due Oct. 1, 1887 . . .	\$450,000 00
West Roxbury Park, 4% Loan, due Jan. 1, 1913 .	233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913 .	60,000 00
East Boston Park, 4% Loan, due Jan. 1, 1913 .	50,000 00
West Roxbury Park, 4% Loan, due April 1, 1913,	300,000 00
Charles River Embankment, 4% Loan, due April 1, 1913	285,000 00
City Point Park, 4% Loan, due April 1, 1913 .	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	119,000 00
West Roxbury Park, 4% Loan, due Jan. 1, 1914,	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
	<hr/>
<i>Amount carried forward</i>	\$2,281,000 00

<i>Amount brought forward</i>		\$2,281,000 00
Charles River Embankment, 3¼% Loan, due Oct. 1, 1915	16,000 00	
City Point Park, 3¼% Loan, due Oct. 1, 1915,	13,000 00	
Arnold Arboretum, 3½% Loan, due April 1, 1916	20,000 00	
Charles River Embankment, 3½% Loan, due Oct. 1, 1916	55,000 00	
Total Debt		\$2,385,000 00
Less the means in the Sinking Fund, and in hands of City Treasurer, for paying the same, Dec. 31, 1886	670,471 95	
Debt, less means for paying		<u>\$1,714,528 05</u>

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Dec. 31, 1886, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

West Roxbury Park, 4% Loan, due Jan. 1, 1913	\$100,000 00	
Back Bay, 4½% Loan, due Oct. 1, 1887	75,000 00	
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00	
East Boston Park, 4% Loan, due Jan. 1, 1913	50,000 00	
Albany Street, 6% Loan, due March 1, 1887	30,000 00	
Muddy River Improvement, 4% Loan, due April 1, 1913	19,000 00	
Total investments		\$334,000 00
Cash		329,684 14
Total resources		<u>\$663,684 14</u>

PARK CONSTRUCTION.

In its last annual report the Board called attention to the low limit of taxation fixed by statute, and the consequent necessary contraction of appropriations for all purposes, to-

gether with the manifest impossibility of completing the public parks, or of carrying on the work with any degree of completeness or continuity with the small amounts that could be afforded from this source, and recommended that application be made to the Legislature for the passage of an act to enable the city to issue fifty-year bonds for park construction, provided for by annual payments to sinking funds sufficient to meet the same at maturity, thereby spreading the cost of these permanent improvements over a long term, and allowing the present generation to share in the benefit of their completion at a proportional cost relatively lower than if built at once by taxation.

This recommendation resulted in the passage of an act, approved June 21, 1886, authorizing the city to issue bonds, payable in not exceeding fifty years, to the amount of five hundred thousand dollars each year, and to a total amount not exceeding two million five hundred thousand dollars, for the construction of the public parks, said loan to be outside the limit of municipal indebtedness fixed by section two of chapter one hundred and seventy-eight of the Acts of the year 1885.

Differences of opinion in the Board of Aldermen regarding the act resulted in the postponement of concurrent city action until the opening of the City Government the present year, when the necessary vote was passed to authorize the Treasurer to issue the bonds provided for in the act, and to enable this department to proceed with the construction of the parks. Owing to the straitness of the city finances under the taxation law, and to the expected relief by a loan for park construction, the City Council declined to make appropriations for the public parks; consequently the only constructive work done was from balances of former appropriations, the details of which will be found in the report of the City Engineer, under whose direction the work has heretofore been done.

CHAMBER GIVEN KAMPANMENT

MASTERS PRINTING CO., BOSTON.

In regard to the work to be done upon the various parks the coming year the Board will follow the plan laid down in its recommendations to the City Council contained in its last annual report.

CHARLES RIVER EMBANKMENT.

The Board made applications to the Legislature for an extension of the time within which the Charles River Embankment must be completed, and for a change of line at the southerly end to provide for future extensions. These propositions were favorably entertained by the Board of Harbor and Land Commissioners, and resulted in chapters sixty-five and one hundred and thirty-four of the Acts of 1886.

The contract for the construction of the embankment seawall was amended to conform to the new line, and the work proceeded without further interruption until the completion of the contract in October. Filling has since been going on by carts from the site of the new Court-House and various other sources without cost to the city.

A preliminary study of a plan for laying out these grounds is herewith presented, with the following explanation of the plan by the Landscape Architect : —

To the Park Commissioners : —

SIRS, — The preliminary plan which I have had the honor to submit for your consideration for the improvement of the lately embanked ground on Charles river, between Cambridge and Leverett streets, derives its special character from regard for the following circumstances : —

1. It is near a part of the city much occupied by extensive industrial establishments, and having a large tenement-house population.

2. It should be an important means of reducing rate at midsummer of infants and young children.

3. To all others it is likely to be most useful at when the finer beauty of gardens is lost, people come then in great numbers who have been confined during day in close and heated buildings, streets, and yards.

4. Its special sanitary value, both with respect to climate and to the class of visitors last mentioned, will be in the expanse of tide-water upon which it opens ; partly because of the radical change of scene which it will offer from that of the compact town, and partly because of the radical change of air that it may provide.

5. It should offer some facilities for open-air exercise to people whose occupations are sedentary.

6. The site is one of extreme exposure for plants. If garden qualities could only be maintained at a greater extent than in the other public grounds of the city. It is well adapted to the growth of hardy trees.

7. The space is too small relatively to the number of people likely to resort to it for the introduction of plots of turf to be walked upon. It would be impossible to keep them in decent condition.

Governed by these considerations, the leading features of the plan are : —

First. A level promenade nearly half a mile in length, adjoining and overlooking deep water. This promenade is to have an unbroken width of twenty-five feet. It is to be bordered on the side opposite the river by a row of trees, back of which are to be shaded seats, the arrangements being spacious, simple, and convenient for keeping clean and in good order.

Second. On the side of the promenade toward the city

the larger part of the ground is to be raised above the general level with slopes of a natural aspect, and is to be planted in the character of a natural grove, screening the air coming from that direction, shutting the buildings out of view, giving a certain degree of sylvan seclusion to the promenade, and smothering the roar of the streets to those upon it.

Third. A space 370 by 150 feet in extent is to be enclosed and prepared especially as an exercise-ground for women and children, no others being admitted. It is to be screened about with shrubbery, and is to be adapted only to simple forms of recreation in which many can be engaged at a time quietly, without compelling care-taking of excessive cost.

Fourth. A space 500 by 150 feet in extent is to be fitted with simple gymnastic apparatus, and subject to use for more robust forms of exercise; but not games or feats likely to attract crowds in which it would be difficult to maintain order, and which would interfere with the comfort of women and children on the promenade.

Fifth. Two landings for boats are provided for, and it is intended that boats for hire should be offered at them.

Sixth. Two houses to contain water-closets, tool-rooms, and offices of administration are proposed, one at the entrance of the women's exercise-ground and near the southern boat-landing, the other near the gymnastic-ground and the northern landing.

Seventh. A row of lights at the edge of the embankment, and another along the street, will satisfactorily light the entire ground. No gas-pipes are to be laid in the planted parts.

Respectfully,

FREDK. LAW OLMSTED,

Landscape Architect.

Since the earliest report of the Board it has always been its opinion that the improvement of the Charles River Basin is a matter of such importance to the future City of Boston that no effort should be spared to secure its final consummation. It may not be wise, in the present condition of the city finances, to carry the work of actual construction farther at present ; but the city should urge upon the Legislature the importance of devoting the shores of the basin to ornamental purposes in such a manner as to forever preclude the possibility of its use for other purposes. State, private, and corporate interests have alike had designs upon its area. In 1870 a proposition was made by a committee of the House of Representatives to fill a large area of the basin for building purposes, thereby reducing the river to a narrow channel 600 feet wide. In 1881 private interests secured from the Legislature the right to fill a large area of flats on the Cambridge side, carrying the harbor line several hundred feet farther into the river. Recently a railroad corporation published a plan to utilize the Boston side for railroad purposes. This proposition, or any measure which proposes to reduce the river to a narrow channel, would destroy its beauty and the salubrious effect that its proper development would have upon the city ; and no legislation could be more beneficial than the passage of an act to forever guard against this result.

MARINE PARK.

The temporary pier at the Marine Park was completed during the early summer, and has received a hearty appreciation from the people visiting the " Point." It was thronged day and evening in the hot months by those seeking its fresh and invigorating breezes. It provides for a want which will be more fully met when the contemplated iron pier running some twelve hundred feet farther into the bay, is constructed. Q and First streets are now being constructed so as to con-

nect with each other,—a thing long desired by the public. The Paving Department will also, by means of the same appropriation, construct Q street on a permanent and satisfactory grade.

There will then be a pleasant drive by Q street across the shore end of the Marine Park from Sixth street to First street. The grading of Q street will also enable this department to grade and plant that portion of the Marine Park immediately adjoining the street.

Before much more can be done on the pleasure-bay, legislation must be had extending the provisional line of improvement defined by Chapter 360 of the Acts of the year 1885. In reporting this bill the Committee on Harbors and Public Lands stated that—

“It is not intended in this bill to define the exact limits within which the whole of the contemplated Marine Park at South Boston may be located. The plan of the Park Commissioners proposes the extension of a portion of the park beyond the north line of the area described in the bill. The limits and conditions of such extension involve important questions in connection with the great work of harbor conservation and improvement which the Commonwealth is now prosecuting in the enclosure and filling of the South Boston Flats, and the construction of docks and piers between Fort Point Channel and Castle Island. More time is desired for careful study and consideration by the Harbor and Land Commissioners and the Park Commissioners of the interests involved and the respective plans to be adopted in the further reclamation of the flats by the Commonwealth, and in the location and construction of the proposed park by the city. This will not delay the beginning of their work by the Park Commissioners within the limits defined in the bill.”

The Harbor and Land Commissioners state that their plans are not so far developed as to enable them to determine how large an area of flats, north of its present location, they can recommend adding to the Marine Park. After consultation with them it has been determined to make such an application to the Legislature as will enable legislation to be had if it is hereafter found expedient.

The preliminary plan of the Marine Park, published in the report for 1883, is herewith reprinted, the outlines of Castle Island and appurtenant flats being added for convenient reference. Negotiations will also be had with the United States for authority to use Castle Island and its flats in harmony with this design.

FRANKLIN PARK.

The plan for laying out Franklin Park designed by Mr. Olmsted, and published last year in a special report which was prepared by him, has met the requirements of the public taste so far as the popular opinion has been noted, no adverse criticisms having appeared.

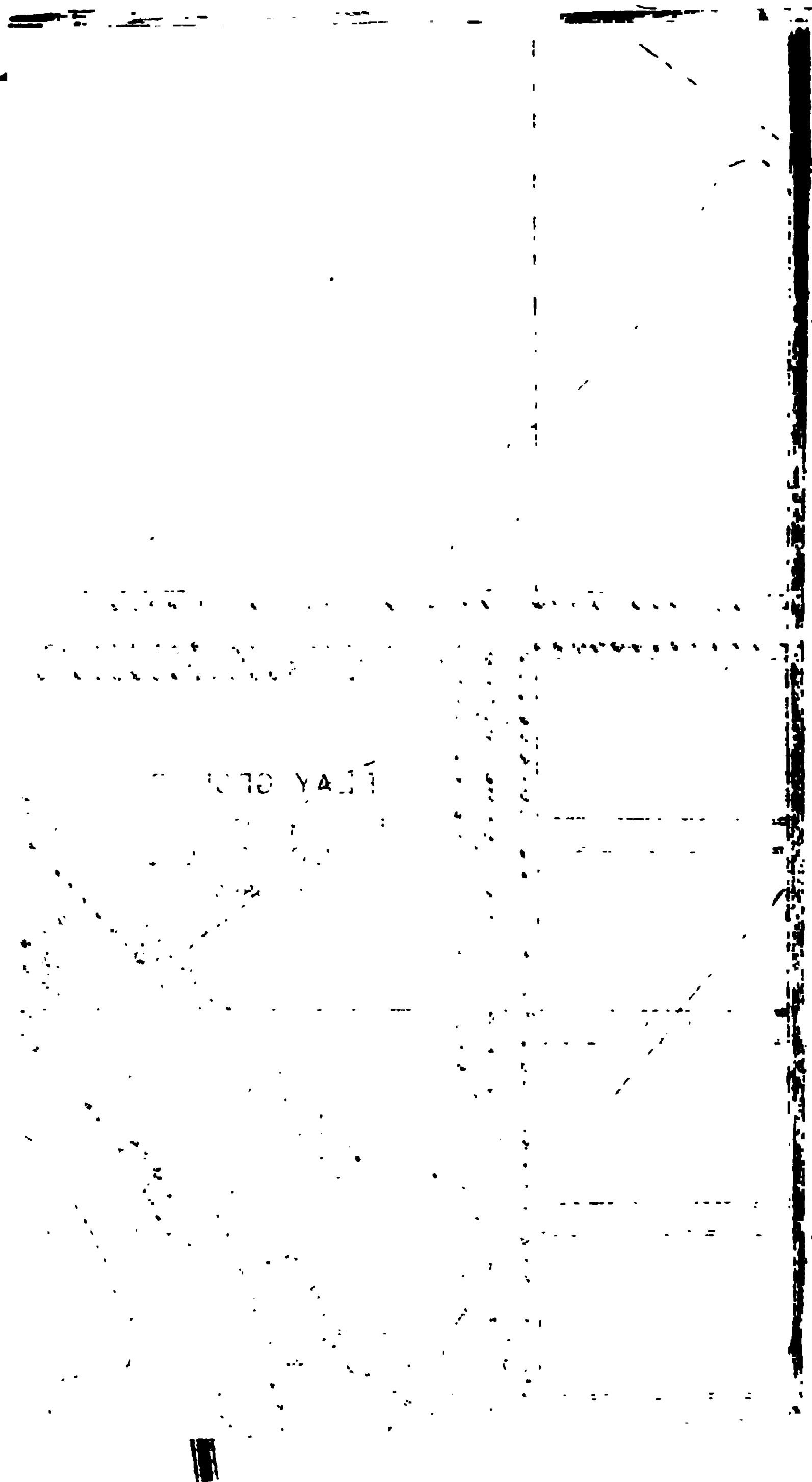
The Park Nursery and propagating-house, under the efficient care of the Assistant Landscape Gardener, Mr. W. L. Fischer, aided by a half-dozen hands, have, during the year, largely increased the number and value of plants of all kinds required for the parks.

ARNOLD ARBORETUM.

Professor C. S. Sargent, director of the Arnold Arboretum, has presented this Board with his report to the President and fellows of Harvard College for 1885-86 in which he says : —

“I have the honor to submit the following report of the condition and progress of the Arnold Arboretum during the year ending August 31, 1886 : —





"A beginning has at last been made in planting the type collection of trees on the system of arrangement briefly described in my last annual report. The ashes, elms, catalpas, birches, hickories, hophornbeams, and beeches, or a large part of the individuals and groups intended to illustrate these genera, have been planted. In the *coniferæ*, the true pines, the firs, spruces, and larches have been planted. The ground has been prepared to receive, in the spring of 1887, the oaks, walnuts, and chestnuts. When these are planted, the most important genera of timber-trees, those in which individuals require the longest period to attain maturity, will have been arranged. Planting, in addition to that already provided for, cannot, however, be undertaken until the City of Boston finishes, or at least extends, the roads through the Arboretum. Practically nothing has been accomplished by the city authorities during the year, and no work whatever has been done by them in the Arboretum since December. The planting is now already far in advance of the road-making.

"About seventy thousand trees and shrubs have been permanently planted during the year in the systematic arrangement of trees, in boundary belts, and in different border and coppice plantations. The ground which will be occupied by the trees of the permanent type collection has been prepared in the most thorough and careful manner. The contract executed between the President and Fellows of Harvard College and the City of Boston provides that the Arboretum shall be maintained in this place for a thousand years, and there is good reason to hope, therefore, that many of the trees now planted will be allowed to live out the full term of their existence. Trees have never been planted with better promise of undisturbed old age. It is proper, therefore, that all possible provision for their future requirements should be made. None of the trees in the type groups have been planted in

pits less than ten feet square, and all trees intended to grow singly and develop into specimens are planted in pits twenty-five feet square. Rock, gravel, and sandy soil have been removed from all pits to a uniform depth of three feet and replaced by a compost of loam and peat. The soil, as far as practicable, has been deepened and enriched over the whole surface planted. Nearly a thousand squares of loam have been brought into the Arboretum during the year for this purpose. The result of this expenditure, which is very considerable, will not perhaps be apparent for many years; but sooner or later the Arboretum will get the full benefit of it in older and finer trees than could have been raised on its naturally thin and now exhausted soil.

"A dwelling-house, with an acre of ground adjoining the Centre-street entrance, has been taken on a long lease from the trustees of the Adams Nervine Asylum. A small propagating-house, better adapted to the reduced requirements of the Arboretum than the larger houses of the Bussey Institution which have been occupied for this purpose during several years, has been built at this point. The rest of the leased land will be used as a frame-yard and nursery; the dwelling-house will be occupied by the superintendent of the Arboretum.

"The nurseries, plantations, and natural woods are in a healthy and generally satisfactory condition. Young trees have grown well, and the old trees in the woods and scattered about the grounds, which have been pruned from time to time, now show the good results which follow this method of treatment.

"The interchange of plants and seeds with other botanical and horticultural establishments has been continued during the year. There have been 2,606 plants and 106 packets of seeds distributed as follows: To all parts of the United States, 2,164 plants and 7 packets of seeds; to Canada, 67



12

packets of seeds ; to Great Britain, 376 plants and 15 packets of seeds ; to the continent of Europe, 17 packets of seeds ; to the Island of St. Helena, 66 plants.

"There have been received during the year, 1,773 plants and 156 packets of seeds from 22 donors. Mr. Dawson has collected during the year nearly 62,000 shrubs from the woods in different parts of New England. These have been permanently planted in the borders along the completed driveway or have been added to the nurseries.

"There have been added to the Herbarium during the year 955 sheets of dried plants. Specimens in the Museum have been rearranged and relabelled, and many duplicate and superfluous specimens distributed.

"I was able, through the courtesy of the Secretary of the United States Light-House Board, to spend the month of April, in company with Mr. Faxon, on the light-house tender "Laurel" in visiting the shores and islands of southern Florida for the purpose of studying the peculiar vegetation of that region. A large amount of interesting material was gathered during this journey, which extended also to western Louisiana, Alabama, and the Florida peninsula."

COLUMBIA STREET.

The Board desires again to call attention to the importance of widening Columbia street, the connecting link between the Marine Park and the other parks of the system.

LAND SETTLEMENTS.

Of the twenty unsettled claims for land damages remaining at the beginning of the year 1886, fourteen have been settled or tried, three of which, however, have been carried up on exceptions, and six others are awaiting their turn for trial.

ADDITIONAL PARK LANDS.

It is the desire of the Board to keep constantly before the City Government and the people its plans for the present and future. More money is wanted to carry out these plans, but not more than has been necessary from the beginning, and not for any other purposes than those originally contemplated. The plans remain the same. In its report of last year the Board says : —

“The system of parks as planned and partially carried out by the preceding Boards requires sundry additional lands for the securing of which no provision has yet been made. The most important of these locations is the proposed Jamaica Park, approached on one side by the Riverdale Road. It is the connecting link between the Back Bay and Riverdale Improvements and the Bussey Park (Arnold Arboretum), and will make a pleasure-ground of great beauty and attraction in the chain of parks. It has been referred to and recommended by the Board several times in past years, and this Board can only repeat its recommendation, that a loan of \$350,000 be authorized, to be issued only as fast as needed, to purchase the estates now in the market, and to secure others from time to time as arrangements therefor can be made.”

The second report of the Board, in 1876, advocated this location in the following language : —

“The area of Jamaica Park, including the pond of seventy acres, is one hundred and twenty-two acres. This beautiful lake is the only important sheet of fresh water within the city limits. For a short distance on its northerly and southerly

side it is skirted by the highway, and from these points of view its beauty is familiar to the public. Its western shore is a somewhat steep hillside, well planted with trees and shrubbery, and mostly occupied at present by private dwellings, with their adjacent ornamental grounds, seriously disfigured, however, within a few years, by the erection of extensive ice-houses. Its eastern border is less bold, more irregular in outline, and at present occupied by private dwellings, with their lawns and shrubberies, and with some fine trees. The different characters of the opposite shores contrast well with each other. Unless the city takes possession of the entire shore the rural character of the scenery will probably be hopelessly destroyed within a few years. As estates come into the market, one after the other, the banks will be denuded of their present fine growth, and be replaced by unsightly ice-houses, with their adjuncts of stables and tenements, by which the pure waters of the pond will be defiled, — dangers already threatened.

"The chance that this pond, situated in an extensive plain, with a range of high hills on three sides, in the midst of such a dense neighborhood as within a few years will exist around it, will become pestilential, and the certainty that, if defended and used as proposed, it will be of great sanitary advantage to the city, are considered to be conclusive reasons for this location. The Commissioners cannot too strongly urge the importance of early action in the premises in order to avert the danger and secure the benefit. The pond is a favorite resort of skaters in winter, and, to a limited extent, is used for boating in summer, and these will be encouraged and rendered more safe by police regulations. It lies between the four and four and one-half mile circles. Its chief approach from town will be by the Jamaica parkway (now Riverdale Improvement) which will skirt the eastern shore, while the western will be traversed by foot and

saddle paths. Notwithstanding the comparatively large amount of improvements, in the form of dwellings, ice-houses, etc., upon this location, the Commissioners are of the opinion that the cost will be justified by the exceptional character of the park."

The appropriation for Muddy-river lands was at the outset known to be inadequate, and this inadequacy has thus far prevented the laying out of this improvement as a public park. The additional amount required will be about two hundred thousand dollars; the amount appropriated being less by that amount than the stated requirements made at the time. Some additional land will also be required at the Longwood Entrance to Back Bay to widen and accommodate its lines to the outlines of the Riverdale Improvement. The amount for this purpose will be about fifty thousand dollars. Land will also be required for the parkways connecting Jamaica Park with the Arnold Arboretum and Franklin Park, part of which have already been secured in the taking of lands for the Arboretum. In its report for 1885 the Board recommended that an appropriation of one hundred thousand dollars be provided by a loan for this purpose.

In addition to these wants there will be a probable deficiency of three hundred and fifty thousand dollars to meet unsettled land damages, including the amounts of several verdicts already obtained. A map of a part of the park system, showing several of the parks and parkways as then proposed, was published in the Annual Report of the Board for 1881. This map is herewith reproduced in a new form to show the locations already secured and the additional lands required to complete the system.

A report by the City Engineer, and copies of the Acts of the Legislature and orders of the City Council having refer-

ence to public parks and kindred matters, will be found in the Appendix.

Respectfully submitted,

BENJAMIN DEAN,
PATRICK MAGUIRE,
JOHN F. ANDREW,
Commissioners.

Boston, January 29, 1887.

APPENDIX.

OFFICE OF CITY ENGINEER,

CITY HALL, BOSTON, Jan. 17, 1887.

HON. BENJAMIN DEAN, *Chairman Board of Park Commissioners*: —

SIR, — I herewith submit the following report of work done and of other matters of interest in connection with the work placed under my direction by your Board: —

BACK BAY IMPROVEMENT.

At the beginning of the year no work was in progress. In February a freshet occurred which was the most severe one since work was begun upon this improvement. Rain began to fall on the morning of the 10th and continued until the afternoon of the 13th. The total precipitation was 5.86 inches, and the melting of the snow upon the ground added about two inches more. No injury was sustained at the Back Bay, and the covered channel, built under the direction of the Park Department, and the structures for controlling the flow of the water worked in a satisfactory manner.

A small amount of planting was done in April, but all work was suspended on April 19, the appropriation having been expended. During the year no other work has been done except such as was necessary for the preservation of the property.

ARNOLD ARBORETUM.

During the year no work has been done except to sprinkle the drive-way and keep it clean.

FRANKLIN PARK.

Estimates were made in January of the cost of construction of this park. During the year repairs upon the buildings to prevent their deterioration have been made, but no work has been done.

MARINE PARK.

The wooden pier, begun in 1885, was completed March 26. This structure was described in the report for 1885. In May and June the outer end of the pier for a length of 854 feet was covered with a roof. Provision was also made for lighting the pier. The refectory building was removed to a site adjoining the entrance to the pier, and connected with Q street by a broad plank-walk.

WOOD ISLAND PARK.

No work has been done here during the year.

CHARLES RIVER EMBANKMENT.

The contract for a sea-wall was signed Dec. 30, 1884, by Messrs. Parker & Sylvester, and work was commenced in April, 1885, and was prosecuted rapidly until the middle of September, when the work was partially suspended until an additional appropriation could be made. An appropriation of \$50,000 having been made in November, work was commenced early in the spring of 1886, and it was completed early in the fall.

The work done under this contract consists of a sea-wall and filling between the southerly side of Canal bridge and the northerly side of West Boston bridge. The original design was to build the wall generally 200 feet from and parallel with the westerly line of Charles street. This was modified by a change in the line near West Boston bridge, making but one angle in the length of the wall instead of two, as in Charles street.

At the two angles in the wall, as originally designed, it was intended to have boat-landings. The change of plan, however, obliterates one of these angles, and the boat-landing was moved to the West Boston bridge.

The sea-wall is about 2,223 feet in length, and is constructed of

granite masonry laid in mortar ; it is 7.67 feet wide at the bottom, and 4.6 feet wide at the top, and is capped with a coping of dressed granite 5 feet wide. The granite backing of this wall was obtained from an old retaining wall on the shore line.

The foundation generally was a plank platform supported on piles ; but for a distance of 420 feet the material was excavated to ledge, and split-granite masonry was used, laid without mortar. The wall was backed with ballast, and its front was filled to the grade of the top of the platform with gravel, and protected by ballast.

The elevation of the top of the coping is 15 feet, and of the top of the timber platform 1.92 feet above city base.

The greater part of the filling of the space between the sea-wall and Charles street has been done with gravel dredged from Charles river, above the West Boston bridge, it being a part of the work included in the before-mentioned contract, and the remainder is being obtained from the Health Department, the Court-House Commissioners, and various other sources.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

STATUTES OF THE COMMONWEALTH AND ORDERS
OF THE CITY OF BOSTON CONCERNING PUBLIC
PARKS AND RELATED MATTERS.

COMMONWEALTH OF MASSACHUSETTS

[CHAP. 178.]

In the Year One Thousand Eight Hundred and Eighty-five.

AN ACT TO LIMIT THE MUNICIPAL DEBT OF, AND THE RATE
OF TAXATION IN, THE CITY OF BOSTON.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The taxes assessed on property in the city of Boston, exclusive of the State tax, and of the sums required by law to be raised on account of the city debt, shall not exceed in any year nine dollars on every one thousand dollars of the average of the assessors' valuations of the taxable property therein for the preceding five years, the valuation for each year being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment. Any order or appropriation requiring a larger assessment than herein first above limited shall be void.

SECT. 2. The limit of indebtedness of the city of Boston shall hereafter be two and one-half per cent. up to and until the first day of January in the year eighteen hundred and eighty-seven, and thereafter shall be two per cent. on the average valuation prescribed in section one of this act, instead of three per cent. on the last preceding valuation, as provided in section four of chapter twenty-nine of the Public Statutes.

SECT. 3. Any court or justice having equity jurisdiction, sitting in the county of Suffolk, shall, upon the application of the Mayor or of ten taxable inhabitants of the city, at all times, whether in term time or vacation, have power to issue injunctions, manda-

tory or otherwise, decrees, or other process against the city council or otherwise, which such court or justice may think needful to enforce the provisions of this act or to prevent the violation thereof.

SECT. 4. This act shall take effect upon its passage.

[Approved April 17, 1885.]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 65.]

In the Year One Thousand Eight Hundred and Eighty-six.

AN ACT EXTENDING THE TIME FOR THE COMPLETION OF
THE PUBLIC PARK IN THE CITY OF BOSTON, KNOWN AS
THE CHARLES RIVER EMBANKMENT.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows: —*

SECTION 1. The time within which the board of park commissioners of the city of Boston may build the sea-wall on the Boston side of the lower basin of Charles river, between Craigie's bridge and West Boston bridge, and may fill and fit up the grounds enclosed thereby for the purposes of a public park, as authorized by chapter ninety-two of the acts of the year eighteen hundred and eighty-one, and in accordance with the plans and specifications for said work heretofore duly approved and licensed by the board of harbor and land commissioners, is hereby extended one year, to wit: to the sixteenth day of March in the year eighteen hundred and eighty-seven.

SECT. 2. This act shall take effect upon its passage.

[Approved March 15, 1886.]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 134.]

In the Year One Thousand Eight Hundred and Eighty-six.

AN ACT TO CHANGE A PORTION OF THE LINE OF THE SEAWALL OF THE PUBLIC PARK IN THE CITY OF BOSTON, KNOWN AS THE CHARLES RIVER EMBANKMENT.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows: —

SECTION 1. The ninety-second chapter of the acts of the year eighteen hundred and eighty-one, entitled “An Act in addition to An Act for the laying out of public parks in or near the city of Boston,” is hereby so far amended that the sea-wall therein authorized on the Boston side of Charles river between Craigie’s and West Boston bridges, may be built on or within the following lines instead of those defined in said act, namely: Beginning at a point on the southerly side of Craigie’s bridge distant two hundred feet perpendicularly from the westerly line of Charles street, and running thence southerly in a line parallel to said westerly line of Charles street to a point opposite the first angle in said street; thence turning a similar angle and running southerly in a straight line parallel to and two hundred feet distant perpendicularly from the westerly line of the next adjoining section of said Charles street, and extending in the same course to West Boston bridge.

SECT. 2. All of the other provisions of the act aforesaid shall apply to the lines and areas defined by this act, subject to the extension of time granted by chapter sixty-five of the acts of the present year for the completion of said sea-wall and other authorized work.

SECT. 3. This act shall take effect upon its passage.

[Approved April 9, 1886.]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 199.]

*In the Year One Thousand Eight Hundred and Eighty-six.*AN ACT TO AUTHORIZE THE CITY OF BOSTON TO PURCHASE
THE PROPERTY OF THE JAMAICA POND AQUEDUCT COR-
PORATION.*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The city of Boston, by the Boston water board, may purchase and hold all the property, estates, rights and privileges of the Jamaica Pond Aqueduct Corporation, incorporated by chapter one hundred and thirty-five of the acts of the year eighteen hundred and fifty-seven, and said Boston water board may, if the same shall be deemed expedient, connect Jamaica Pond and the pipes of said corporation so purchased with the other water-pipes of said city; but said city shall not hereby acquire any right to take ice from said pond, or to take land upon which any building or machinery is now erected, or which is now used in connection with such building or machinery for the purpose of storing ice, or for convenience in cutting, storing and moving ice, without the consent of the owner of said land and buildings or machinery; nor shall said city, by virtue of this act or by the purchase hereunder authorized, acquire any right to obstruct or in any manner interfere with the business of persons or corporations now engaged in cutting, storing, selling or moving ice from said pond, or with the rights of any other person or corporation in the water or ice of said pond, or in the lands bordering upon the same, except so far as the same shall be necessary, in raising or lowering the surface of the water of said pond, to the extent, or in protecting and preserving the purity of said waters, in the manner now authorized by law.

SECT. 2. This act shall not become valid until it has been accepted by the city council of the city of Boston, by a vote of two-thirds of the members of both branches thereof.

[Approved May 7, 1886.]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 304.]

*In the Year One Thousand Eight Hundred and Eighty-six.*AN ACT TO AUTHORIZE A LOAN FOR THE CONSTRUCTION OF
PUBLIC PARKS IN OR NEAR THE CITY OF BOSTON.*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. For the purpose of defraying the costs and expenses of constructing the parks established by the city of Boston, the city council of said city may, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, authorize its treasurer to issue, from time to time, to the amount of five hundred thousand dollars each year, and to a total amount not exceeding two million five hundred thousand dollars, negotiable bonds or certificates of indebtedness, payable in not exceeding fifty years from their date and bearing interest at a rate not exceeding four per cent. per annum, to be denominated, on the face thereof, Public Park Construction Loan.

SECT. 2. Said treasurer shall sell said bonds and certificates, or any part thereof, from time to time, and retain the proceeds thereof in the treasury of the said city, and pay therefrom the expenses incurred for the purposes aforesaid.

SECT. 3. Upon the passage of the said vote the board of park commissioners of said city shall without delay proceed with the construction of said parks, and shall carefully and judiciously expend the amounts aforesaid in such construction.

SECT. 4. The debt and loans authorized by this act shall not be included within the limit fixed by section two of chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-five.

SECT. 5. This act shall take effect upon its passage.

[Approved June 21, 1886.]

CITY OF BOSTON,

IN BOARD OF ALDERMEN, June 1, 1886.

Ordered, That the Board of Park Commissioners be authorized to sell at public auction buildings or structures of any kind standing upon lands purchased or taken for park purposes, the proceeds thereof, and the proceeds from the sale of grass and wood from said lands, to be appropriated to the expenses incident to the care and maintenance of the public parks; and the Auditor is hereby authorized to allow payment from said moneys for such expenses upon the requisition of said Board.

Passed: Yeas, 11; nays, none. Sent down for concurrence. June 3, came up concurred: Yeas, 59; nays, none.

Approved by the Mayor, June 5, 1886.

CITY OF BOSTON,

IN BOARD OF ALDERMEN, Sept. 27, 1886.

Ordered, That the Board of Park Commissioners be authorized to sell at public auction all old material in their possession not required for the use of the department, the proceeds thereof to be appropriated to the expenses incident to the care and management of the public parks; and the City Auditor is hereby authorized to allow payment from the said proceeds for such expenses, upon the requisition of said Board.

Passed: Yeas, 12. Sent down for concurrence. Oct. 21, came up concurred: Yeas, 55; nays, none.

Approved by the Mayor, Oct. 23, 1886.

CITY OF BOSTON,

IN COMMON COUNCIL, Nov. 11, 1886.

Ordered, That all claims for reduction or abatement of assessments on account of the locating and laying out of the public parks be referred to the Joint Standing Committee on Claims, who shall consult the City Solicitor and report such settlements as they consider just and equitable.

Passed. Came up for concurrence. Concurred, Nov. 15.

Approved by the Mayor, Nov. 16, 1886.

CITY OF BOSTON,

IN BOARD OF ALDERMEN, Dec. 15, 1886.

Ordered, That in the several suits for abatement of the Franklin Park betterment assessments, the city solicitor be and he hereby is authorized to consent to judgment abating said assessments to an amount equal to ninety-five per cent. of the amount assessed, but in each case without costs and without interest.

Passed. Sent down for concurrence. Dec. 16, came up concurred.

Approved by the Mayor, Dec. 20, 1886.

CITY OF BOSTON,

IN BOARD OF ALDERMEN, Dec. 27, 1886.

Ordered, That the City Auditor be authorized to transfer from the appropriation for Franklin Park the sum of twenty-three thousand (23,000) dollars, said sum to be set aside for the purchase of additional land for Franklin Park.

Passed: Yeas, 11; nays, 1. Sent down for concurrence. Dec. 30, came up concurred: Yeas, 59; nays, 3.

Approved by the Mayor, Jan. 1, 1887.

CITY OF BOSTON,

IN BOARD OF ALDERMEN, Dec. 27, 1886.

Ordered, That the Board of Park Commissioners be hereby authorized to purchase of William S. and George W. Bond, for park purposes, a parcel of land containing 81,090 square feet, more or less, and situated at the corner of Sigourney and Walnut streets; the expense thus incurred not to exceed the sum of twenty-three thousand dollars, and to be charged to a special appropriation for the purchase of additional land for Franklin Park, on condition that the said purchase shall not in any way relieve the said William S. and George W. Bond from their obligation to pay the betterment assessed upon said land on account of the laying out of Franklin Park, and also the taxes assessed thereon for the year 1886.

Passed. Sent down for concurrence. Dec. 30, came up concurred.

Approved by the Mayor, Jan. 1, 1887

CITY OF BOSTON,

IN BOARD OF ALDERMEN, Jan. 3, 1887.

Ordered, That, for the purpose of defraying the costs and expenses of constructing the parks established by the City of Boston, the City Treasurer is hereby authorized to issue from time to time, to the amount of \$500,000 each year, and to a total amount not exceeding \$2,500,000, negotiable bonds or certificates of indebtedness, payable in 50 years from their date, and bearing interest at a rate not exceeding 3 per cent. per annum, to be denominated, on the face thereof, "Public Park Construction Loan."

Passed, all rules of the Board and all joint rules having been first suspended: Yeas, 9; nays, 3. Sent down for concurrence. Came up concurred, all joint and Common Council rules being first suspended: Yeas, 49; nays, 17.

Approved by the Mayor, Jan. 4, 1887.

City of Boston.

DEPARTMENT OF PARKS.

THIRTEENTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

FOR THE

YEAR 1887.

WITH THE COMPLIMENTS OF

BENJAMIN DEAN.

PATRICK MAGUIRE.

JOHN F. ANDREW.

COMMISSIONERS OF PARKS.

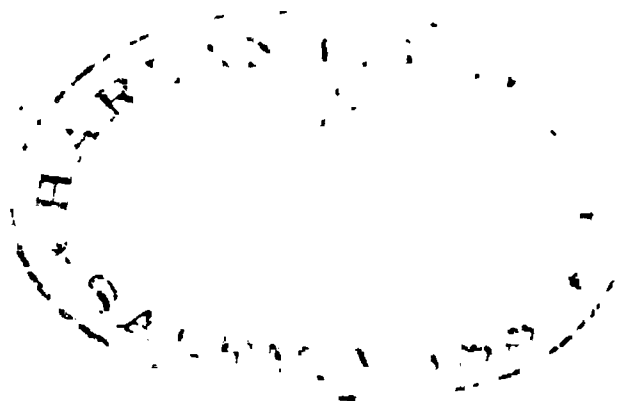
1888.

City of Boston.
DEPARTMENT OF PARKS.

THIRTEENTH ANNUAL REPORT
OF THE
BOARD OF COMMISSIONERS
FOR THE
YEAR 1887.

PRINTED FOR THE DEPARTMENT.
1888.

**PRESS OF
ROCKWELL AND CHURCHILL
BOSTON**



DEPARTMENT OF PARKS.

REPORT.

To the Honorable the City Council of the City of Boston: —

Section 15 of the Act of 1875, Chapter 185, entitled "An Act for the laying out of Public Parks in or near the City of Boston," requires that the Board of Park Commissioners "shall annually, in the month of January, make to the City Council of Boston a full report of its doings for the preceding year, including a detailed statement of all their receipts and expenditures."

In accordance therewith the Board has the honor to submit the following report: —

FINANCIAL STATEMENTS.

I.

Receipts and Expenditures of the Department for the Year 1887.

THE PARKWAY.

LAND ACCOUNT.

BACK BAY FENS.

Balance unexpended, Dec. 31, 1886	\$6,639 57	
Amount transferred from loan for Public Park Lands,	28,473 75	
	<u> </u>	\$35,113 32

Expenditures.

Amount paid for land in 1887 \$85,118 32

MUDDY RIVER.

Balance unexpended, Dec. 31, 1886 \$104,148 88

Expenditures.

Amount paid for land in 1887 \$85,018 80

Balance unexpended, Dec. 31, 1887 69,130 08

\$104,148 88

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction \$164,142 25

Amount transferred from Income and Appropriation for Maintenance 1,319 40

\$165,461 65

EXPENDITURES FOR CONSTRUCTION.*Sidewalks, Gutters, and Drainage.*

Roadways, labor, and materials . . . \$37,480 97

Curbs and walks, labor, and materials . 20,558 86

Gutters, labor, and materials . . . 8,908 50

Drainage, labor, and materials . . . 6,234 16

\$73,182 49

Agassiz Bridge.

Expenses of construction, labor, and materials . 38,768 48

Excavating, Grading, Loam and General Work.

Grading, labor, and materials . . . \$16,037 38

Dredging, labor, and materials . . . 10,394 06

Superintendence and general work, . . . 7,115 15

Loam, labor, and materials 2,560 92

Engineering expenses 823 63

36,931 14

Plantations.

Labor and expenses 9,034 71

Machinery, Tools, and Implements.

Stone-crusher, road-rollers, water-carts, etc. . . 3,653 37

Amount carried forward, \$161,570 19

Amount brought forward, \$161,570 19

Plans and Designs.

F. L. Olmsted, Landscape Architect, and expenses, 1,825 06

Beacon Entrance Bridge.

Standards and lanterns, materials and labor . . . 747 00

\$164,142 25

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and expenses . . . \$985 74

Repairing Beacon Entrance Bridge . . . 161 15

Repairs, and care of buildings, Muddy

River 114 01

Paid Police Department. 58 50

1,819 40

\$165,461 65

ARNOLD ARBORETUM.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1886 \$67 29

Transferred to Public Park Sinking Fund.

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1886 \$24 54

Amount transferred from Income and Appropriation for Maintenance 1,609 36

Amount transferred from loan for Public Park Construction 34,652 14

34,652 14

\$36,286 04

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Expenses of construction, labor, etc., \$32,482 18

Fuel, supplies, carting, etc. 930 83

Materials of construction 784 18

Engineering expenses 479 54

\$34,676 68

Amount carried forward,

\$34,676 68

Amount brought forward, \$34,676 68

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of men	\$1,191 81	
Police equipments and supplies	2 00	
	\$1,193 81	

Care of Grounds and Buildings.

Watchmen, labor, and expenses	\$376 65	
Signs and notices	88 90	
	415 55	
		1,609 86
		\$36,286 04

FRANKLIN PARK.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1886	\$109,844 84	
Amount transferred from loan for Public Park Lands	314,838 42	
	\$424,183 26	

Expenditures.

Amount paid for land in 1887	\$424,183 26	
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CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1886	\$0 80	
Amount transferred from Income and Appropriation for Maintenance	7,969 76	
Amount transferred from loan for Public Park Construction	151,520 27	
	\$159,490 83	

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Grading roads	\$47,997 43	
Surfacing roads	15,191 21	
Paving blocks	8,554 75	
Water pipes	329 15	
	\$67,072 54	
<i>Amount carried forward,</i>	\$67,072 54	

Amount brought forward. \$67,072 54

Clearing and Grading Grounds, Drainage and General Work.

Grading grounds . . .	\$34,984 36	
Drainage	10,624 80	
Superintendence and general work	6,661 65	
Clearing grounds . . .	3,581 20	
Engineer's expenses . . .	3,197 89	
	<hr/>	59,049 40

Overlook.

Materials, labor and expenses . . .	7,704 78
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Plans and Designs.

Plan and design of Franklin

Park	\$5,000 00	
Landscape Architect and ex- penses	1,546 75	
	<hr/>	6,546 75

Playstead Green.

Labor and materials	6,221 08
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Machinery, Tools, and Implements.

Stone-crusher, road-rollers, and water- carts	3,941 17
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Plantations.

Labor and expenses	985 40	
	<hr/>	\$151,521 07

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of men	\$5,712 13	
Equipments and supplies,	559 50	
	<hr/>	\$6,271 63

Care of Grounds and Buildings.

Expenses in care of grounds and buildings	\$920 99		
Labor in care of grounds and buildings	641 83		
Signs and notices	135 81		
	<hr/>	1,698 13	
		<hr/>	7,969 76
			<hr/>
			<u>\$159,490 88</u>

CHARLES RIVER EMBANKMENT.

LAND ACCOUNT.

Balance unexpended, Dec. 31, 1886	\$118 55
Transferred to Public Park Sinking Fund.	

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1886	\$81 44
Amount transferred from Income and Appropriation for Maintenance	1,066 24
Amount transferred from Loan for Public Park Construction	18,168 67
	<u>\$14,266 85</u>

EXPENDITURES FOR CONSTRUCTION.

Filling, Grading, and General Work.

Grading, labor	\$9,233 68
Filling material	1,986 75
Loam	1,373 80
General work	511 46
Engineering expenses	66 42
Coach-hire	11 50
	<u>\$18,183 61</u>

Plans and Designs.

Landscape Architect's expenses	16 50
	<u>\$18,200 11</u>

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Repairs and care of buildings and grounds	\$589 24
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Park Police.

Pay of men	477 00
	<u>1,066 24</u>
	<u>\$14,266 85</u>

MARINE PARK.

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1886	\$569 72
Amount transferred from Income, and Appropriation for Maintenance	2,584 76
Amount transferred from loan for Public Park Construction	20,480 14
	<u>\$23,634 62</u>

EXPENDITURES FOR CONSTRUCTION.

Structures.

Amount paid under contract with Build-	
ers' Iron Foundry for iron pier .	\$18,041 25
Refectory building and fence . . .	631 16
Inspection and engineering expenses .	458 51
Temporary pier, gas-lights, labor, and	
supplies	236 74
Advertising	112 18
Printing	86 54
	<hr/> \$19,516 38

Grading and General Work.

Grading grounds	\$684 35
Superintendence and general work .	327 94
Coach-hire and expenses for committee	
of Legislature	76 00
	<hr/> 1,088 29

Plans and Designs.

Landscape Architect	445 19
	<hr/> \$21,049 86

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen and labor on grounds . . .	\$1,989 84
Expenses in care of grounds and build-	
ings	580 67
Signs and notices	14 25
	<hr/> 2,584 76
	<hr/> \$28,634 62

WOOD ISLAND PARK.

CONSTRUCTION AND MAINTENANCE.

Balance unexpended, Dec. 31, 1886 . . .	\$33 88
Amount transferred from loan for Public Park Con-	
struction	30,139 94
	<hr/> \$30,173 27

EXPENDITURES FOR CONSTRUCTION.

Neptune Bridge.

Amount paid Sylvester & Rowe, under their contract for bridge abutments,	\$28,977 00	
Inspection and engineering expenses	819 85	
Printing and advertising	84 04	
	<u> </u>	\$29,880 89

Plantations and General Work.

Superintendence and general work	\$176 66	
Plantations, labor, and materials	116 22	
	<u> </u>	292 88
		<u>\$30,178 27</u>

DEPARTMENT APPROPRIATION.

Balance unexpended, Dec. 31, 1886	\$2,849 16	
Appropriation for the financial year 1887-88	6,500 00	
	<u> </u>	\$8,849 16

GENERAL ACCOUNT.

Expenditures.

Salary of secretary and clerk	\$3,000 00	
Clerical service at office	1,720 00	
Printing annual report, etc.	914 77	
Telephone and messenger service and incidental expenses	548 00	
Stationery	194 03	
Surveying Muddy River lands	85 94	
Expenses of City Council committee's visit to the parks	65 00	
Coach-hire	68 00	
	<u> </u>	\$6,590 74
Balance unexpended, Dec. 31, 1887	2,258 42	
	<u> </u>	\$8,849 16

PARK NURSERY.

Balance unexpended, Dec. 31, 1886	\$925 11	
Amount transferred from Income Account	181 57	
Appropriation for the financial year 1887-88	5,000 00	
	<u> </u>	\$6,106 68

Expenditures.

Labor	\$4,241 12	
Expenses in care of propagating house and nursery,	332 99	
Assistant Landscape Gardener and expenses . .	240 61	
Plants	6 70	
Balance unexpended Dec. 31, 1887	1,285 26	
	<u> </u>	\$6,106 68

APPROPRIATION FOR MAINTENANCE.

Appropriation for the financial year 1887-88 . .	\$15,000 00
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Expenditures.

Paid on account of Franklin Park	\$6,460 08	
Paid on account of Marine Park	1,972 44	
Paid on account of Arnold Arboretum	937 46	
Paid on account of Charles River Embankment . .	642 64	
Paid on account of Parkway	515 20	
Balance unexpended Dec. 31, 1887	4,472 18	
	<u> </u>	\$15,000 00

INCOME.

Receipts.

Balance remaining, Dec. 31, 1886	\$941 84	
Received from premiums on loans	57,600 00	
Received from rents and sale of buildings, grass, stone, and old materials	7,418 77	
Received from forfeit, under contract	100 00	
	<u> </u>	\$66,060 11

Payments.

Paid into Public Park Sinking Fund	\$57,608 23	
Transferred to Franklin Park	1,509 68	
Transferred to Parkway	804 20	
Transferred to Arnold Arboretum	671 90	
Transferred to Marine Park	612 32	
Transferred to Charles River Embankment . .	428 60	
Transferred to Park Nursery	181 57	
Paid City Collector forfeit under contract . .	100 00	
Balance remaining, Dec. 31, 1887	4,158 61	
	<u> </u>	\$66,060 11

PUBLIC PARK LANDS.

Public Park Loan, issued July 29, 1887 . . .	\$310,000 00	
Public Park Loan, issued Aug. 13, 1887 . . .	90,000 00	
	<hr/>	\$400,000 00
		<hr/>

Expenditures.

Paid on account of Franklin Park . . .	\$314,888 42	
Paid on account of Parkway . . .	28,478 75	
Balance unexpended Dec. 31, 1887 . . .	56,687 83	
	<hr/>	\$400,000 00
		<hr/>

PUBLIC PARK CONSTRUCTION.

Public Park Construction Loan, issued Feb. 21, 1887 . . .	\$500,000 00	
	<hr/>	

Expenditures.

Paid on account of Parkway . . .	\$164,142 25	
Paid on account of Franklin Park . . .	151,520 27	
Paid on account of Arnold Arboretum . . .	84,652 14	
Paid on account of Wood Island Park . . .	30,139 94	
Paid on account of Marine Park . . .	20,480 14	
Paid on account of Charles River Embankment . . .	18,168 67	
Balance unexpended Dec. 31, 1887 . . .	85,896 59	
	<hr/>	\$500,000 00
		<hr/>

II.

Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Dec. 31, 1887.

PARKWAY CONSTRUCTION.

BACK BAY FENS.

Receipts.

From appropriations for Back Bay . . .	\$1,082,179 39	
From loan for Public Park Construction . . .	164,142 25	
From appropriations for Park Department . . .	22,868 85	
From Income Account . . .	8,449 41	
	<hr/>	\$1,272,639 90
		<hr/>

Expenditures.

Filling	\$453,577 23
Excavating, grading, loam, and general work .	314,546 62
Retaining-walls, curb and fence	107,284 71
Boylston bridge	92,011 43
Sidewalks, gutters, and drainage	87,100 06
Beacon-entrance bridge	56,675 79
Railroad bridge	39,995 04
Agassiz bridge	39,396 12
Plantations	29,026 23
Plans and designs	20,975 31
Office and general expenses	14,114 92
Machinery, tools, etc.	12,464 28
Surveying	5,472 16
	<hr/>
	\$1,272,639 90
	<hr/>

III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Dec. 31,
1887.*

PUBLIC PARK CONSTRUCTION AND MAINTENANCE.

Receipts.

Public Park Loan for lands, less balances merged	\$2,883,791 73
Appropriations, less transfers, merged balances, and betterment expenses	1,589,646 05
Public Park Construction Loan	500,000 00
Income appropriated to maintenance	51,984 63
	<hr/>
	\$4,975,422 41
	<hr/>

Disbursements.

Franklin Park land	\$1,414,838 42
Parkway construction	1,276,639 90
Parkway land	625,843 67
Charles River Embankment land	370,886 45
Marine Park land	232,972 57
	<hr/>
<i>Amount carried forward,</i>	\$3,920,681 01

<i>Amount brought forward,</i>	\$8,920,681 01
Charles River Embankment construction	190,168 67
Franklin Park construction	185,268 41
Arnold Arboretum construction	98,652 14
Arnold Arboretum land	79,982 71
Wood Island Park construction	63,690 61
Marine Park construction	61,888 40
Wood Island Park land	50,000 00
General account	38,650 59
Franklin Park maintenance	28,074 05
Park Nursery	16,981 98
Arnold Arboretum maintenance	6,595 17
Charles River Embankment maintenance	6,387 65
Marine Park maintenance	5,604 82
Parkway maintenance	3,912 90
Wood Island Park maintenance	49 38
Balance unexpended, Dec. 31, 1887	223,883 97
	<hr/> \$4,975,422 41 <hr/>

PUBLIC PARK DEBT AND SINKING FUND.

Receipts.

Appropriations for interest on debt	\$508,897 24
Appropriations for Sinking Fund	311,125 00
Received from betterments, less refunded	310,189 35
Interest on bank deposits and investments	123,717 00
Income applied to the payment of debt	94,000 00
Income paid into Sinking Fund	60,958 61
From Park appropriations for Betterment Expenses	9,677 62
Unexpended balances of loans for Park lands paid into Sinking Fund	180 84
	<hr/> \$1,418,695 66 <hr/>

Disbursements.

Interest on Public Park debt	\$508,897 24
Debt paid by Sinking Fund	450,000 00
Public Park Sinking Fund	342,067 49
Debt cancelled by revenue and betterments	99,000 00
Betterment expenses	9,677 62
Betterments held under protest	9,053 81
	<hr/> \$1,418,695 66 <hr/>

DEBT STATEMENT.

The Public Park Debt, Dec. 31, 1887, to be paid as it becomes due from the Resources of the Public Park Sinking Fund.

West Roxbury Park, 4% Loan, due Jan. 1, 1913 .	\$233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913 .	60,000 00
East Boston Park, 4% Loan, due Jan. 1, 1913 .	50,000 00
West Roxbury Park, 4% Loan, due April 1, 1913,	300,000 00
Charles River Embankment, 4% Loan, due April 1, 1913	285,000 00
City Point Park, 4% Loan, due April 1, 1913 .	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	119,000 00
West Roxbury Park, 4% Loan, due Jan. 1, 1914,	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
Charles River Embankment, 3½% Loan, due Oct. 1, 1915	16,000 00
City Point Park, 3½% Loan, due Oct. 1, 1915 .	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916 .	20,000 00
Charles River Embankment, 3½% Loan, due Oct. 1, 1916	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917 .	400,000 00
Public Park Construction, 3½% Loan, due Jan. 1, 1937	500,000 00
<hr/>	
Total Debt	\$2,835,000 00
Less the means in the Sinking Fund, and in hands of City Treasurer, for paying the same, Dec. 31, 1887	851,120 80
<hr/>	
Debt, less means for paying	\$2,483,879 20
<hr/>	

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Dec. 31, 1887, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

West Roxbury Park, 4% Loan, due Jan. 1, 1918 .	\$100,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1918 .	60,000 00
East Boston Park, 4% Loan, due Jan. 1, 1913 .	50,000 00
Muddy River Improvement, 4% Loan, due April 1, 1918	19,000 00
Cochituate Water, 4% Loan, due April 1, 1917 .	25,000 00
Cochituate Water, 8% Loan, due April 1, 1917 .	25,000 00
<hr/>	
Total investments	\$279,000 00
Cash	68,067 49
<hr/>	
Total resources	<u>\$342,067 49</u>

PARK CONSTRUCTION.

The following is an account of the operations of the Department during the past year, with some suggestions concerning its future work. A more detailed statement by the Engineer will be found in the Appendix.

Wood Island Park. — The abutments for the bridge over the Boston, Revere Beach, & Lynn Railroad have been completed. This, together with the planting of trees on Neptune Road, was all the work contemplated for the season. The building of the bridge itself, together with some grading, will be the work of another season.

Marine Park. — A contract for seven hundred feet of the permanent iron pier was made, and fourteen cylinders, of five feet diameter, two to a bent, embracing a length of three hun-

dred and sixty feet, have been successfully placed. A continuance of this construction, and such other work as can in the meantime be undertaken, will be the work of next season.

Charles River Embankment. — The work on the Embankment has been so far completed that the raised parts are receiving a dressing of loam and manure, and the playground at the northerly end is being covered with gravel. The Paving Department is removing its buildings and material from the southerly end. Planting, and completing the walks will be the work of next season.

The Parkway—Back Bay Fens. — A large force has been employed on the work of this important feature of the park system, and the roadway from Commonwealth Avenue to the Westland Entrance has been substantially completed. Boylston Entrance has been completed so far as this Department is concerned, but the raising of buildings on the connecting street delays the opening of it to the public. The completion of the other roads around the lower basin has been delayed by the lack of crushed stone, and the scarcity of skilled pavers because of the large amount of work in their line in the city.

The amount of crushed stone required for the roads is large, and the crusher will be run during the winter that no lack of this kind of material shall be hereafter experienced.

The arches of Agassiz Bridge are being rapidly laid, and arrangements have been made for continuing the work successfully during the winter.

The future policy will be the pushing to the utmost of the work according to the designs heretofore adopted, the Board not having found it necessary to make any change in them.

Arnold Arboretum. — The work laid out for the year has been completed, namely, the building of the road to the top

of Bussey Hill, and the grading of the adjoining ground. The expense of this work has exceeded the amount named in the indenture with Harvard College, but the Board was instructed by the corporation counsel and city solicitor that the amount was not inserted as a limit of the expenditures of the Department. The future work will be a continuation of the roads within the Arboretum.

Franklin Park. — The work on this park has been pushed with vigor. The Playstead is completed, and only awaits that the greensward may become a compact turf. The road around it has had so much work done upon it that it will be ready for use before the end of another season. The bulk of the work on the Overlook has been done. Its completion is delayed by the difficulty of procuring the stone for the parapet. This will also be ready for use before next winter.

The Board intends during the next season to make all progress possible with the roads in the Country Park. It should be borne in mind that in the taking of stone from the Playstead, in the laying of drains, and in other particulars, an enormous amount of the work done upon Franklin Park is now under ground and out of sight.

BACK BAY AND STONY BROOK.

By Statute 1887, Chap. 428, authority was given to the city to discharge, by a new channel, the water of Stony Brook, increased by the improvements along the stream, into the Back-Bay basins.

This arrangement was, for reasons stated in the report of the Landscape Architect, unlooked for, and will require the adoption of means to *lessen* the damage likely to be caused by it.

It is, however, a subject of congratulation that the works

of this Department were constructed on so liberal a scale as to be able to take in and discharge this increased volume of water.

The basin or basins were so constructed that the water could, at high tide, be kept at a level below the tide water, and thus be able to receive and store the water of freshets, without a rise in them sufficient to endanger the trees, shrubs, and banks.

This can no longer be done, but, as already stated, the danger of damage may be much lessened.

The report of the Commission on the "prevention of floods in the valley of Stony Brook" says: —

"It might be thought that the water in the pond might be kept at a lower elevation than that of the river, and that the pond might be used as a storage reservoir to receive the water of Stony Brook during freshets. Calculations based upon the area of the pond and the quantity of water which may flow during great freshets, after improvements have been made, show that the surface of the pond would rise faster than the tide, and that nothing could be gained in that way."

The same Commission, with reference to the outlet of the new Stony-Brook channel, says: —

"In deciding where to place the outlet of the new channel, we first notice that Charles River is nearly twice as far from the upper end of the proposed new structure as is the pond in Back-Bay park. It would be impracticable to build any new channel within or parallel to the park which would have as great capacity and require as little inclination as will that already furnished by the park pond. The available fall to

the park pond would be five feet, and to the Charles River would be but one foot more, or six feet. Consequently, a channel to reach Charles River, having less inclination, must be considerably larger, and, being nearly twice as long, would be more than twice as costly as one ending at the park pond."

The construction and opening up of the Back-Bay basins, and the Muddy-River improvement, into one great open channel, for sanitary and drainage purposes, is, as thus appears, to be credited with a large saving of the cost of the Stony-Brook improvement.

The saving in obviating the still greater cost of remedying the sanitary evils, inevitably otherwise to arise on the whole length of Muddy River, cannot be easily estimated.

The contemplation of the state of things, but for this improvement sure to exist in this valley, should lead all to assign the expense of this part of the park system rather to sanitary necessity than to the seeking of pleasure, however well calculated it may be to meet the desire for the latter, as well as the necessity for the former.

THE PARKWAY SYSTEM.

The name Back Bay formerly designating a large area of marsh-lands and flats, mostly under water, at the back of the town, continued attached to the locality after it had been filled and built upon, and is now generally applied to the whole district from the Providence Railroad and Arlington Street to Brookline. In this district Stony Brook and Muddy River, draining a large area of Roxbury, West Roxbury, Dorchester, and Brookline, emptied their waters into what was formerly called the full basin.

The nuisance which the use of these streams as a recepta-

cle for sewage had caused at their confluence in the full basin, and in the whole marshy region of the Back Bay, called loudly for a remedy. The City Government of 1877 made an appropriation for the improvement of these waste lands and flats (under the authority of the Park Act), to the extent of not less than one hundred acres, which, in the language of the order passed by the City Council, were to be "located with special reference to the improvement of the sewerage of the city."

The lands thus taken for sanitary and park purposes were required for a suitable outlet for the waters of these streams, and a basin for storing and controlling the excess of water in time of freshets, occurring with high tides. Only a narrow strip on the margins, reserved for street purposes, could be utilized for drives and promenades, while a cross-road and bridge for travel from one side to the other divided the basin into two parts. Not being a park in the proper signification of the word, it came to be called the "Back Bay Improvement," or simply "Back Bay." This name embraced the neighborhood, and is, therefore, not especially applicable or appropriate to the more limited area acquired by the Department for the above diverse purposes.

A later appropriation for continuing the improvement along Muddy River, with the purpose of making a continuous promenade from the Common to Franklin Park, added a new feature to the Back-Bay improvement which it did not possess standing alone, namely, that of a section of the great parkway contemplated by the plans of the Department. This view has been taken by Mr. Olmsted in his report on the nomenclature of the parkway system, which will be found annexed, and in the adoption of his suggestions by the following vote of the Board : —

IN BOARD OF PARK COMMISSIONERS, Dec. 30, 1887.

VOTED, — *First.* That the intended public promenade, being the continuous way designed to be formed with special regard to pleasure driving, riding, and walking between Boylston Road and Marine Park, by the way of Jamaica Pond, the Arboretum, and Franklin Park, together with the adjoining strips of territory intended to be improved by the Department, appurtenant to the promenade, be named as a whole, “The Parkway.”

Second. That different parts of the Parkway shall, as occasion arises, be given distinguishing names, all such names to terminate with the syllable “way.”

Third. That the local designations, Ipswich, Jersey, Rumford Longview, and Riverdale be discontinued.

Fourth. That the flooding-basins of the Stony-brook drainage system be called “The Fens;” its banks, “The Fenside;” the division of the promenade of the Parkway adjoining the Fens, “Fenway;” and the division of the promenade of the Parkway adjoining Muddy River, as far as Tremont Street, “Riverway.”

Fifth. That the territory of the Department lying between Boylston Road and Charles River be called “Charlesgate,” and the streets bordering the same, respectively, “Charlesgate East” and “Charlesgate West.”

There being no advantage in keeping under separate heads the accounts of these connecting park works, they have been united under the title, “The Parkway.” This plan, when the system is continued on to Jamaica Pond, the Arboretum, Franklin and Marine Parks, will simplify the accounts both of construction and maintenance, and will further emphasize the idea of the continuity of the whole.

CHARLESGATE.

Negotiations of long standing with the Boston and Roxbury Mill Corporation for the settlement of the suit growing out of the taking of its lands for the outlet of the Parkway at Charles River, and of the suits arising from the assessment of betterments, were resumed during the summer,

and resulted in a recommendation of this Board to the City Council, and the passage of the requisite orders to carry out the proposed arrangement.

The communication of the Board to the City Council is as follows : —

Boston, October 21, 1887.

To the Honorable the City Council of the City of Boston: —

Negotiations have long been pending with the Boston and Roxbury Mill Corporation for the settlement of its claim for land taken adjoining the sluice-ways of the Back-Bay basin, also for the settlement of the claim of the city for betterments, in both of which a final arrangement has now been arrived at.

The entrance to the Back Bay, of which the land taken from this corporation formed a part, was originally laid out three hundred feet in width. Subsequently the city acquired from the Boston Water Power Company two strips of land, fifty feet in width, bordering the entrance from Beacon Street to the Boston and Albany Railroad, thus widening the entrance between these points to four hundred feet. The negotiations with the Boston and Roxbury Mill Corporation have, therefore, sought the extension of the entrance at its full width of four hundred feet from Beacon Street to the river, and, by offsetting betterments and allowing the use of the additional land as public ways, this has finally been accomplished, subject to the approval of the City Council. An order for this purpose is appended.

The arrangement includes a release from the city to the Boston and Roxbury Mill Corporation of certain rights to construct sluiceways through the company's land under an indenture between the Mill Corporation and the Boston Water Power Company, dated May 9, 1832, and supposed to be acquired by the city in the taking of the Water Power lands. The present sluiceway renders other sluiceways unnecessary, and an order to authorize a release of the right to make them has been prepared and is submitted herewith. Both orders have received the approval of the City Corporation Counsel, and, as the arrangement only runs until December 1, early action is desirable.

Respectfully submitted,

BENJ. DEAN,
PATRICK MAGUIRE,
Board of Park Commissioners.

The orders, which will be found in the Appendix, were approved by the Mayor Nov. 21, 1887, and the transaction was finally completed within the time named.

In order to make the jurisdiction of the Board complete over all the roads within the Parkway, it was determined, after consultation with the Board of Street Commissioners and the Corporation Counsel, to take and lay out the parcels of land heretofore known as Ipswich and Jersey streets, and the continuations thereof to Charles River, as a public park, which was accordingly done Dec. 30, 1887. It is suggested that the planting of the areas reserved for planting in that part of Commonwealth Avenue lying between West Chester Park and Beacon Street be placed in charge of this Department, in order to insure uniformity of design and character.

CONNECTION OF THE PARKWAY WITH THE NEW BEACON-STREET IMPROVEMENT.

The improvement and widening of Beacon Street caused owners of land as well as the Park Commissioners to recognize the value of the connection between the two enterprises which finally led, early in the summer, to a proposition from the owners to give to the city free of cost a strip of land, 100 feet wide, from the circle on Beacon Street, near St. Mary's Street, to the railroad, together with the release of all grade damages, provided that the city would bridge the railroad and assess no betterments. Negotiations were opened with the railroad company which resulted in authority for the construction of the bridge. The lines of the Parkway were redrawn at this point to meet the new conditions, and negotiations for a considerable addition to the Parkway lands were closed. All the preliminaries having been arranged, on the 23d of last December the Board voted to purchase

these lands, and accepted the proposition for a gift of the strip named.

THE PARKWAY LANDS.

The inauguration of the Muddy-River improvement from Back Bay to Jamaica Pond called for an enlargement of that part of the Back-Bay improvement leading from Brookline Avenue to the Fens. The intended greater importance and usefulness of this outlet of the Fens made its widening a necessity. Immediately, therefore, after the Muddy-River improvement was determined upon, the City Government was applied to for an appropriation for said purpose. It is expected that early in the coming year the construction of this part of the improvement will be reached, and the revision of its outlines can be no longer delayed. The finishing of this work will open the Parkway from Beacon Street to Brookline Avenue.

The length of time that has elapsed since the Back-Bay improvement was commenced, and the rapid approach of costly buildings towards it on the easterly side, have created a great impatience for its completion, — not only among the owners of real estate in the vicinity, but the public generally.

The Board earnestly desires that the work may not be impeded for want of funds to purchase the necessary lands.

Purchases of the lands along Muddy River have from time to time been made, as opportunity arose for securing them at fair prices. The appropriation for this part of the parkway system being about one-half of the estimated cost of the lands, no complete taking could be made. The progress of the work of construction at Back Bay, and the necessity of providing early in the spring for the continued operation of the dredging machine, make an early taking necessary.

The last City Government petitioned the Legislature for

the passage of an act to authorize the city to issue a loan, outside the debt limit, for the payment of lands taken under the Park Act. This was intended to include lands already taken at Back Bay and Franklin Park, the appropriations made for which had been exhausted, as well as those intended to be taken to complete the Parkway to Franklin Park. The Committee on Cities of the Legislature, to which the matter was referred, did not consider the petition broad enough to include any lands not already taken, and, in consequence, a loan applicable only for the payment for lands already taken was authorized. The Board would urge the importance of another effort to obtain at once the funds sufficient to complete the taking of the larger part, if not the whole, of the Parkway from Back Bay to South Boston. It is desirable to fix the Parkway boundaries that owners of lands outside the locations may improve and develop their properties. It is estimated that about \$700,000 will be required for the purpose of completing the taking of the Parkway from Back Bay to Franklin Park. In former reports, particularly in that of last year, the Board has dwelt on the importance of immediately securing these lands. In the latter report, also, a map is published showing this part of the Parkway.

EXTENSION OF THE PARKWAY TO MARINE PARK.

The Board has previously called attention to the need of widening Columbia and Boston streets as a direct approach from South Boston to Franklin Park. A moderate widening of the street would afford a considerable measure of relief from the present inadequate conditions, but would fall far short of the great requirements of the future when the city will have grown up solidly about it. Ending at Dorchester Street, it would only make a partial connection between Franklin Park and Marine Park, and the difficult passage of South Boston would be a barrier to pleasure travel.

The importance of the Marine Park to the system requires a more fitting and unimpeded connection with the other parks than this half-way plan provides. In looking for a feasible route for such a connection a glance at the map reveals the vacant south shore of South Boston, on a part of which Ninth Street has recently been built along the water's edge. Here is to be found over a mile of water-front almost entirely unimproved, having a southerly exposure and a fine near view of the harbor, which could be utilized, at small proportional cost, to make a most attractive drive and promenade, and, in connection with the Marine Park, one of the greatest pleasure resorts in the world. A connection could readily be made with Columbia and Boston streets, which, improved in like manner, would complete the circuit of the Parkway.¹

If it should be considered unadvisable to borrow the whole sum needed to take these lands at once, a part of the amount required, if appropriated and placed to the credit of the Department, would enable the Board to purchase such properties along the line as might be in the market, at about their assessed values, or could be obtained at favorable rates. This plan has, in the experience of the Board, been found to work well. In fact, in no instance has a taking been made before the Board had either bonded or purchased all the properties that could be had at what was thought fair values. It is estimated that \$300,000 will secure all the land required from Dorchester Street to the Marine Park, and if the proposition meet your approval it is recommended that that sum be appropriated for this section of the Parkway, and that the Board be authorized to take lands to that amount, by purchase or otherwise, as provided in the Park Act.

¹ See diagram on the map of the Back Bay Fens, printed with this report.

COST OF THE PARKWAY.

As the Board in carrying out its plans asks for more money for the purchase of lands, it desires to call attention to the fact that a very large part of the money, appropriated to and expended by the Department, would otherwise have been required and expended by other departments to serve necessary purposes. For instance, it will appear, in another part of this report, that the Back-Bay improvement saved the city the large expense of conveying the waters of Stony Brook by an expensive conduit to Charles River.

This improvement was constructed as a sanitary necessity, and but for it a large part of its cost would have to be expended in underground conduits and other necessary public works. The order making the appropriation for the improvement required roads to be made on all sides, which are also to be extended through the entire length of the Muddy-River improvement. These roads save the cost of other roads, which would otherwise have to be built at about an equal cost. The same may be said of Columbia Street, which requires widening for a suitable connection between Franklin Park and Marine Park. Some broad avenues, running in different directions from the city proper, are required to meet the public necessity and convenience. Columbia street is in a desirable position for one of such avenues, and should be liberally widened, whether parks are considered or not.

There is another consideration bearing upon the same question. It has been said that there is something almost providential in the good fortune of Boston in its parks. The large area of Franklin Park, so near the city, remained as farms until required for park purposes. Back Bay and Muddy River, a menace to the health of the city, will be converted from almost pestilential lonesomeness to a place of

beauty and salubrity. The greater part of Columbia Street is still unbuilt upon, and can now be widened at comparatively little expense; and the south shore of South Boston is almost absolutely unoccupied, and of little value for commercial or other purposes.

As early as in 1882 it was shown in the reports of the Board that on the Back Bay the increase of assessed values, since the improvement was begun, were such that the increased taxes thus collected, added to the betterments, equalled the whole amount of the cost of land and improvements. The same result is found to-day, but to a greater degree, and it is safe to say that the operations of the Department, so far as they relate to the Parkway, do not tend to increase the rate of taxation in the city, but rather to diminish it, and this result will be augmented after construction ceases.

The Board thinks that it would be derelict in its duty if it did not urge to the utmost the purchasing, at this time, of the lands necessary for the entire system of parkways.

MARINE PARK.

An application was made to the last Legislature for the extension of the limits of the Marine Park to the location of the proposed reserved channel, north of East First Street.

The position of the proposed channel being still unsettled, it was agreed, with the Harbor and Land Commissioners, that the provisional line of northerly extension established by Chap. 360 of the Acts of 1885 should be relocated 300 feet farther north. A bill was reported, and authority to carry operations to this point was granted by Chap. 427 of the Acts of 1887, which will be found in the Appendix.

This was done with the understanding that, when the location of the reserved channel should be finally determined

upon, it should form the northern boundary of the Marine Park.

In December last the following petition, for the right to improve Castle Island for park purposes, was addressed to Congress : —

BOSTON, Dec. 2, 1887.

To the Hon. Senate and House of Representatives of the United States of America, in Congress assembled :

The City of Boston, by its Park Commissioners, is engaged in constructing a series or system of parks in said city, one of which, called the Marine Park, is at a place called City Point, near to and west of Castle Island, on which is located Fort Independence, said island belonging to the United States.

The plan of said Marine Park involves, if it can be carried out in full, — and this cannot be done without the consent and coöperation of the United States Government, — the use of said Castle Island or some parts thereof.

The undersigned, Park Commissioners of the City of Boston, respectfully represent that the portions desired to be used for park purposes will not injuriously affect the use of said island and fort by the United States for any of the purposes for which it was intended to be occupied ; and that the occupancy of the neighborhood of the island for park purposes will interfere with the use of the island and fort by the United States to a less degree than if used for mercantile or manufacturing purposes, which would otherwise be the case.

They further say that the use of the island for park purposes may be under such rules and regulations as the government may desire to make to secure its use for military or other national purposes, as occasion may require.

The annexed plan exhibits the contemplated Marine Park as designed, if the consent of the Government to the plan can be obtained.

Authority to construct said Marine Park according to said plan as far as the Commonwealth of Massachusetts is concerned has already been given by the Legislature of said Commonwealth as appears by the Acts and Resolves passed by the General Court of Massachusetts in the years 1885 and 1887, namely, Chap. 360 of the Acts of the year 1885, entitled " An Act in further addition to an Act for the laying out of Public Parks in or near the City of Boston," and Chap. 427 of the Acts of the year

1887, entitled "An Act to enlarge the Area for the proposed Marine Park of the City of Boston between South Boston and Castle Island," copies of which Acts are hereto annexed.

It is therefore prayed that the City of Boston may be authorized to construct said Marine Park so as to connect with said Castle Island substantially in the manner of said annexed plan, and may do such dredging and other works as may be necessary and proper to carry out the same.

CITY OF BOSTON, BY

• BENJ. DEAN,
PATRICK MAGUIRE,
JOHN F. ANDREW,
Board of Park Commissioners.

This communication was forwarded to Hon. P. A. Collins, Representative to Congress from this district, together with the following suggestions for a draft of a proposed joint resolution : —

Joint Resolution authorizing the improvement of Castle Island in Boston Harbor owned by the United States.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled :

That permission be, and is hereby, granted to the City of Boston, in the State of Massachusetts, through its Park Commissioners, to improve and beautify Castle Island, situated in said city, and belonging to the United States, in connection with a public park to be laid out on land adjoining and connecting with said island, with the right to said City of Boston to make such excavations and fillings and erect and maintain such structures as the Secretary of War may from time to time approve : *provided*, that this resolution shall not be construed to pass any title in said island, but that the ownership and control of the said grounds shall remain entirely in the United States, and shall be subject to such changes and uses for military purposes as the Secretary of War may direct.

A precedent for the proposed action has been found in a joint resolution adding the grounds about Fort Porter to the park system of Buffalo. It is a similar case, except that

there a part of the fort was destroyed to make way for the "Park drive to the Front." The resolution is as follows: —

[No. 104.]

Joint Resolution authorizing the improvement of the grounds owned by the United States in the City of Buffalo, New York, known as Fort Porter.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled:

That permission be, and is hereby, granted to the City of Buffalo, in the State of New York, through its Park Commissioners, to improve and beautify the grounds known as Fort Porter, situated in said city, and belonging to the United States, in connection with a public park to be laid out on land adjoining the said grounds, the plans for the same to be approved by the Secretary of War: *provided*, that this resolution shall not be construed to pass any title in the said grounds, but that the ownership and control of the said grounds shall remain entirely in the United States, and shall be subject to such changes and uses for military purposes as the Secretary of War may direct.

Approved July 11, 1870.

The Marine Park has become a popular place of resort even in its rough and undeveloped state. The crowd of people who visit it and the temporary pier already justifies the building of the new iron pier.¹ It is a great resort on pleasant Sundays. As many as forty thousand have been estimated by the special officer in charge and others to have visited the park on some occasions. On one of the later days of the season photographs were taken, which are herewith reproduced, tending to show in how large a measure this pleasure-ground has taken hold of the popular fancy, and to what a great extent it is already conducing to the health and enjoyment alike of old and young. Its inestimable

¹ The winter photographs of the new iron pier in process of construction at Marine Park have been inserted, although taken since this report was prepared for publication.

value to young children can hardly be appreciated even by those acquainted with these facts. Weekly reports by the matron in charge of the room devoted to the use of mothers and children tell of the beneficent influence already exerted by the park, and which will operate to the benefit of a greater number in the future. A brief statement of the number of visitors on some Sundays and week-days, as noted by the special officer on the park, will be found in the appendix.

CHARLES RIVER EMBANKMENT.

In its last Annual Report the Board called attention to the importance of securing the Charles-River basin from the possibility of its use for commercial or other than ornamental purposes, and suggested that legislation should be directed towards this result.

ZOOLOGICAL GARDENS AND AQUARIA.

In Mr. Olmsted's "Notes on the plan of Franklin Park," which appeared as supplementary to the Eleventh Annual Report of this Board, a division of the park, named on the plan "Long Crouch Woods," from the colonial name of the adjoining road (now Seaver Street), was indicated as "to be held subject to lease to a suitable organization for a zoölogical garden."

This suggestion was taken up by the Boston Society of Natural History, and resulted in the following communication from a committee of the council of the society, in regard to establishing zoölogical gardens and aquaria in the public parks, which was received by the Board September 16th last, and was referred to Mr. Olmsted for suggestions for a reply : —

To the Honorable the Park Commissioners : —

The Boston Society of Natural History has long had in view a considerable extension of its public service, and now begs leave to lay before the Park Commissioners an outline of its plans for the immediate future, in which it respectfully asks for their coöperation.

The Museum of the Society, established in 1830, and now open to all (free at certain times, and at others by payment of a small fee), has been built up from the first with special reference to the public benefit, and with the distinct understanding that it shall be forever auxiliary to the general scheme of public state and municipal education. Within the last score of years it has still further developed the idea by establishing a special "*New England Collection*" of animals, plants, and minerals; and, while abating in no respect the privileges of the general public, has secured by private munificence, the close contact with the Museum and its collections, of hundreds of the public-school teachers of Boston and vicinity, by means of practical exercises (with specimens of considerable value given away to all), and instruction under the ablest direction, on successive Saturday afternoons.

The Society is anxious, however, to do still more, and therefore invokes the aid of the Park Commissioners in a scheme which will enable it to offer to the people of Boston opportunities at present wanting in all New England, viz. : —

By a system of zoölogical gardens, aquaria, etc., to offer opportunities to observe, under conditions as nearly natural as possible, the broad features of the animal and plant life of this country. Furthermore, the plan calls for attention, primarily and especially, to the fauna of New England, both land and marine, including its indigenous quadrupeds, birds, reptiles, fishes, mollusks, crustacea, etc., under conditions — not too restricted — such as will facilitate public observation of their habits, their native environment, their behavior at different times, their breeding peculiarities, and the rearing of their young.

The urgent need of such opportunities is proven by the fact that nowhere nearer than New York City can anything of the kind proposed be found. And it is to be borne in mind that, with the increase of population, and the concomitant decrease of the indigenous wild animals, above all with the modern excessive growth of city life, the percentage of city children (and hence of all) who may ever hope to see, and still less to observe at their leisure, the living objects of their native state or country is rapidly diminishing. At the same time the importance of such observation and study, instead of decreasing in like proportion, is

greatly enhanced. To the country boy it is of comparatively little moment whether he observes this bird or plant, or that, since he has usually definite ideas of all, drawn from frequent observations of many. But to the city lad it is of the utmost consequence that he shall be able to correct his less definite ideas — formed for the most part by hearsay, by books, or by pictures — by observation of the object itself.

Second only to its educational importance is the value of the scheme in supplying to all classes an outlet for their natural and praiseworthy curiosity, a vast store of innocent and healthy amusement, and never failing recreation and diversion such as natural-history gardens and aquaria always offer.

It appears, therefore, to the undersigned, that it is not only eminently fitting and proper, but even imperative, for the metropolis of New England to promote the establishment and control of zoölogical gardens, aquaria, etc., by the Boston Society of Natural History, since these will certainly not be duplicated in New England, will be in trustworthy hands, giving them an acknowledged scientific character; and, being unique in New England, will be resorted to by visitors from far and near.

Any such plan demands at the start a considerable area of land within easy distance of the thickly inhabited parts of the city. No land of sufficient extent has been found in the vicinity of Boston, at all available for such a purpose, excepting what is under the charge of the Park Commissioners, and it is for this reason that the Committee brings these plans to their attention.

It is the purpose of the Society, if the Park Commissioners shall express their approval of the general plan (which the Committee will lay more fully before them, if desired), and shall signify their readiness to place in the charge of the Natural History Society such parcels of land as may be available and suitable for the purpose, to lay these out in an attractive manner, to stock them with animals, and to establish aquaria for such creatures as inhabit the adjacent fresh and salt waters, with basins of considerable size for the larger marine animals; and, eventually, to furnish the visitor with such guides as will enable him to understand easily the objects he is to see.

Furthermore, the Society stands ready to open the grounds and aquaria to the public at certain times free, on reasonable conditions, reserving only the right to provide for the proper maintenance of the establishment by charging an admission fee at other times. It is in no way intended to inaugurate or carry out the plan as in any sense a

commercial enterprise, but only to insure its perpetual support and improvement by appealing to a natural and healthful interest in living objects. The Committee is confident that the general plan must commend itself to the Park Commissioners, not only as legitimately within the scope of their powers, but as fully accordant with the purposes for which the parks were established by the city, and in no small measure supplementary to the plans already undertaken for entertaining and instructing the people.

(Signed)

M. D. ROSS, *Chairman*,
H. P. BOWDITCH,
THOS. T. BOUVÉ,
JOHN CUMMINGS,
ALPHEUS HYATT,
EDWARD BURGESS,
WM. T. SEDGWICK,
SAM'L H. SCUDDER, *Sec'y.*

*Committee of
the Council of the
Boston Society
of
Natural History.*

BOSTON, Sept. 12, 1887.

(Dr. C. S. Minot, the other member of the Committee, is absent in Europe.)

On September 30th the Board sent the following reply :—

BOSTON, September 30, 1887.

TO MESSRS. M. D. ROSS, H. P. BOWDITCH, THOS. T. BOUVÉ, JOHN CUMMINGS, ALPHEUS HYATT, EDWARD BURGESS, WM. T. SEDGWICK, CHAS. S. MINOT, and SAM'L H. SCUDDER, *Committee of the Council of the Boston Society of Natural History* :—

GENTLEMEN, — The Park Commissioners are glad to learn, from your communication of the 12th inst., that the Boston Society of Natural History is inclined to extend its present means of usefulness by providing and maintaining collections of living animals, and that, preliminary to the preparation of a definite scheme for the purpose, it wishes to be informed of the views of the Commissioners on the subject.

The Commissioners have considered that such collections are a part of the proper scientific and educational equipment of a modern city; that, as customarily made in the form of zoölogical gardens, a considerable body of land is required; that the difficulty of obtaining suitable

land, conveniently situated, has hitherto been the principal obstacle to a satisfactory scheme for providing them for Boston.

The Commissioners have learned that the larger number of existing collections of the class in view have had their beginning, at least, in societies, formed for the purpose of establishing them, on the footing of joint-stock commercial undertakings.

Originating with a few active naturalists, or men of special tastes, a large element of the success of these enterprises is understood to lie in the extensive distribution of their stock among all classes of the people of the towns benefited. Ghent, for instance, when its zoölogical garden of thirteen acres was begun had less than a third of the population of Boston, and was slowly recovering from a great lapse from its earlier prosperity in trade; but the society taking up the scheme soon numbered four thousand stockholders, the greater number of whom became active agents in securing the success of the undertaking. The society at Antwerp bought land in 1843 with a capital, raised in the same manner, of \$20,000. In a few years it was able to buy additional land, and from time to time since has enlarged its operations, the latest important addition to its plant being an extensive and exceedingly interesting and beautiful aquarium. Members of this society pay an initiation fee of four dollars, and an annual fee of five dollars. The charge for admission to the garden for others than members is twenty cents.

Another class of such collections is established and supported by funds drawn from public treasuries, administered directly by agents of government, much as are the funds for the public library and for public schools in Boston. The collection connected with the Jardin des Plantes in Paris, and that in a corner of the Central Park of New York, are of this class.

A third class are managed by private corporations upon land leased to them by governments, at a nominal rent, on certain conditions. These conditions are, usually, the admission of the public to the collections on certain days of every week at a stipulated low charge or without charge, the free admission at certain other times of students and artists, and some guarantee that the proper scientific and educational objects of the collection shall not be sacrificed to considerations of immediate popularity and financial prosperity. Of this class, which may be termed that of the mixed method, are well-known examples in Paris, London, Dublin, and Philadelphia. The leased land has been generally a part of an old government forest, or of unproductive crown

properties near the city. In no case known to the Commissioners has land taken from private possession by a city for a park been used for the purpose. The land of the Philadelphia zoölogical garden, though nominally taken for a park, was really acquired by the city as a part of a series of measures for guarding its water supply.

The Park Commissioners will stand opposed to any scheme under which the City of Boston would follow the example of New York in undertaking the direct management of a zoölogical collection. It is the conviction of the Commissioners that the more nearly the Department of Parks is limited to the definite duty of providing the people of the city with opportunities simply of rural recreation, unmixed with other methods of recreation, and of guarding the means under its control for this purpose from being encroached upon in efforts to further other ends, the better will its funds be administered and the public served.

As to the independent joint-stock company method of proceeding, it is to be preferred in the judgment of the Commissioners only upon two conditions: First, that the corporation shall be so constituted that the object of a trivial popular success — a success of the order of a circus or travelling-show corporation — shall be permanently held subordinate to that of promoting scientific investigations, scientific instruction, and sound recreative popular education in Natural History. Second, that the corporation shall be able to procure and hold land suitable to all the requirements of health and the satisfactory display of its intended collections, in sufficient quantity and conveniently situated.

With regard to this latter condition the Park Commissioners consider that Boston presents circumstances of unusual difficulty. Its territory is greatly divided by bodies of water and marsh and its dry land by rocky ridges. Growing rapidly, the city is for this reason extending itself in a very scattered way: ground naturally adapted to be built upon in its suburbs being seized upon and occupied much in advance of the spreading area of compact blocks. It is improbable that a corporation seeking to establish a zoölogical garden of the ordinary type could now obtain a satisfactory situation for it except at a price constituting a financial burden upon the enterprise too heavy to be carried. There has been nothing corresponding with the conditions of Boston in this respect in the old Dutch and Flemish towns where the independent and popular joint-stock corporation method of obtaining zoölogical gardens has had its greatest success. At the same time the Commissioners suggest that in turning to the mixed method the advantage which has been secured in these cases by gaining the active coöperation of a large number of small stockholders should not be lost sight of.

The Commissioners having in view the considerations that have been recited, drawing to the conclusion that only by the method in which the city would provide land to be occupied at a nominal rent for a series of years to a suitable corporation is the end in view likely to be accomplished, have been led to reflect as follows: (1.) As it is much better in a matter of this kind that a limited undertaking should be carried out with artistic completeness, finish, and moral effect, than a much broader undertaking in a poor, mean, makeshift, dragging, and slovenly way, adequate precaution against the city's becoming committed to any enterprise liable to be of the latter character is the first duty of those who act in its behalf. (2.) A primal condition of high success at reasonable cost in a collection limited to almost any division of the animal kingdom is that the ground it is to occupy shall be specially suited to it. (3.) Examining all the territory under their supervision which could be considered available for the purpose, the Commissioners have been satisfied that all the conditions which would go to make up a perfect site for a complete zoölogical garden exist nowhere in convenient association. For a considerable part of a complete collection such conditions are to be found upon the twenty acres of land which the Commissioners have placed in reserve at the north end of the outer division of Franklin Park. Because of its sheltered south-western exposure, its excellent drainage, its fine local natural features, its charming distant outlook, its position relatively to the most popular features of the intended park, its situation between the park and the central parts of the city, and its accessibility, — it is an ideal site for the more popularly interesting elements of a limited collection such as is suggested in your communication; but for a complete zoölogical garden it is far from being all that is to be desired.

Pursuing the general line of reflection thus suggested, the Commissioners have seen that there must be a question of the balance of advantages between an attempt to bring together on one piece of ground all collections which the city should undertake to promote, or to provide for a division of them. The drift of the Commissioners' judgment heretofore has been toward the conclusion which appears from your communication to have been independently approached by the Society of Natural History, and they have accordingly had provisionally in view, in addition to the reservation already made north of Franklin Park, two others. One of them would be upon the seashore at City Point, and would supply not only a site for an aquarium of the ordinary type found in the largest zoölogical gardens of Europe, but an arm of the sea, perhaps

quarter of a mile in length, the waters of which, though enclosed, would be moved by the flood and ebb of the tide. The other would be a part of the valley below Jamaica Pond, in which there would be an abundance of flowing fresh water and all desirable advantages for rivulets and pools, forming suitable breeding places for aquatic birds and other desiderata.

Realizing the disadvantages of such a division, the Commissioners have, nevertheless, considered that experience has shown it not to be impracticable; that there are, for instance, successful aquaria in Europe that have been established independently of general zoölogical gardens, and that there are zoölogical gardens containing no aquaria; and that the Ornithological Society of London for many years maintained a collection of certain classes of living birds, larger, finer, and better displayed than those of either of the two general zoölogical gardens.

The Commissioners have considered that it might be an open question whether a separate organization for each of the suggested divisions would be desirable rather than a single corporation, but will regard it a fortunate circumstance if the Natural History Society is prepared to undertake the entire business on a sufficiently strong basis.

The Commissioners believe that they have thus sufficiently defined their position, but in conclusion desire to emphasize two points:—

First, in any negotiation in which they may engage in behalf of the city looking to a lease of lands for the purpose in question, the Commissioners will wish to have before them a well-defined plan of what is to be undertaken, with evidence that the proposed lessees are prepared to carry it out and sustain it in such a manner that, whether little or much is set about, the result shall surely be, of its kind, inferior to none.

Second, it should be clearly understood that the funds now at command, or prospectively at command, of the Commissioners, are to be used for carrying out schemes of improvement which had been adopted before the city was authorized to obtain these funds. The preparation of ground for zoölogical collections was no part of these schemes, and the Commissioners will entertain no proposition looking to a diversion of its present means to that purpose.

BENJ. DEAN,
PATRICK MAGUIRE,

Board of Park Commissioners.

To which the Committee of the Council of the Boston Society of Natural History made the following reply:—

To the Honorable the Park Commissioners of the City of Boston : —

GENTLEMEN, — The Committee of the Council of the Boston Society of Natural History begs leave to acknowledge the receipt of the courteous and suggestive reply of the Park Commissioners to its communication, and to express its thanks for the same. The Committee fully concurs with the Park Commissioners in considering the plan of municipal responsibility pure and simple, alike for foundation, maintenance, and administration, entirely opposed to the welfare both of this municipality and of the undertaking itself. It concurs also in regarding the purely joint-stock corporation plan as undesirable, partly because of the intrinsic tendency of such a corporation to sacrifice the higher aims of such an institution to temporary financial success, but especially because, as pointed out by the Park Commissioners, such a corporation would probably be fatally handicapped at the start by the enormous cost of suitable and sufficient areas of land. Moreover, the Committee would regret to see any undertaking of this sort based upon the expectation of pecuniary returns to stockholders, and does not think it would meet with commendation from the citizens of Boston. In brief, the method suggested by this Committee in its first communication to the Park Commissioners, — namely, the use of public lands at a nominal rental, and in return therefor grants of free admission to the public on certain days, as well as special privileges, when practicable, to teachers of public and private schools accompanied by their classes, with the excellence of the collections and the efficiency of the administration guaranteed by the character of the controlling organization, — seems to the Committee the most suitable to adopt at the outset of this new undertaking, which, though different in character, is nevertheless to be devoted to the same objects as the Society's present museum, namely, the instruction and recreation of all classes of citizens.

The Committee, however, fully realizes the importance of attaching to the enterprise a much larger number of our citizens than the Society itself now includes; and to this end it proposes to create a special class of members, to be called "Natural History Garden Members," thus carrying into effect one of the important suggestions of the Commissioners, "that, in turning to the mixed method, the advantage which has been secured in these cases [establishments of a similar kind], by gaining the active coöperation of a large number of small stockholders, should not be lost sight of."

It appears to the Committee that this "mixed method," so called, is the only one by which it is possible for the city of Boston, for a very long

time to come, to be supplied with the healthful amusement and instructive recreation which consist in the observation or study of animals kept under their natural conditions, and arranged, classified, and described with scientific exactitude. From this point of view, and in accordance with the request of the Park Commissioners for a more exact and detailed statement of its plans and resources, the Committee is prepared to recommend to the Boston Society of Natural History to enter upon a system of coöperation with the Park Commissioners, for the establishment of a Natural History or Zoölogical Garden. But before any plan can be finally adopted by the Society, it is necessary that it should be put in a definite form, and in that form receive the approval of the Council, and also that of the Society at large. The Committee, therefore, feels constrained to request the Park Commissioners to say whether they are prepared to rent to the Society, for a nominal sum, certain areas of land under the control of the Commissioners, as already suggested by them; to wit, that portion of Franklin Park lying on the city side of Playstead and the Greeting, excepting Sargent's Field. This area would probably be large enough for the Natural History or Zoölogical Garden proper, and would require to be supplemented hereafter only by much smaller areas for special purposes, — such as breeding-ponds for aquatic animals, for which the region below Jamaica Pond, referred to by the Commissioners, would answer; and salt-flats and large water-basins for marine aquaria, for which the areas at City Point, described by the Commissioners, would be eminently suitable; and, probably, for some special purposes, some water space in connection with the park in East Boston. The leasing of these areas is to be upon the express condition that the friends of the Society shall raise the sum of \$200,000 as a fund to guarantee the proper maintenance of the proposed Natural History Gardens; and shall also secure, for the Gardens, the advantages of the joint-stock corporation plan by enlarging the membership of the Society, through the admission of "Natural History Garden Members," in order to gain the moral and financial coöperation of a thousand or more persons constituting a large and influential portion of the community; and, furthermore, that the Society shall assume all the burdens of the organization, equipment, and support, of whatever kind, entailed by the undertaking of a first-class Natural History Garden. It is also to be further understood that the action of the Society is to be guided by the principles urged by the Commissioners, and heartily agreed to by the Committee, that "it is much better in a matter of this kind that a limited undertaking should be carried out with completeness, than a much broader undertaking in a mean and makeshift way."

If the Society enters upon this agreement it is to be also further understood that it will lay before the Commissioners, within a reasonable time, "a well-defined plan of what is to be undertaken, together with evidence that the Society is prepared to carry it out and maintain it in such a manner that the result of whatever is undertaken shall surely be, of its kind, inferior to none."

The Committee requests the Commissioners to state whether the proposals above made meet with their approval.

M. D. ROSS, <i>Chairman</i> ,	}	<i>Committee of the Council of the Boston Society of Natural History.</i>
H. P. BOWDITCH,		
THOMAS T. BOUVÉ,		
JOHN CUMMINGS,		
ALPHEUS HYATT,		
EDWARD BURGESS,		
WM. T. SEDGWICK,		
CHARLES S. MINOT,		
CHARLES W. SCUDDER,		
F. W. PUTNAM,		
SAMUEL H. SCUDDER, <i>Sec'y</i> ,		

By

(Signed)

SAM'L H. SCUDDER,

Secretary.

Boston, Dec. 3, 1887.

Upon receiving the above communication, the Board passed the following vote, which has been sent to the Committee of the Council of the Boston Society of Natural History : —

IN BOARD OF PARK COMMISSIONERS,

December 30, 1887.

Voted, That the Board of Park Commissioners has received with pleasure the proposition of the Committee of the Council of the Boston Society of Natural History, for the establishment of Natural History Gardens in the public parks, and assures said society that it shall have reasonable facilities for its undertakings; and that when said society shall have

raised the guarantee fund of \$200,000, and performed the other things set forth in said proposition, then this Board will give what authority it has to said society to occupy lands at Franklin Park, and in the Parkway below Jamaica Pond, and at Marine and Wood Island Parks, at a nominal rental, to enable said society to carry out its purposes of establishing Zoölogical Gardens and Aquaria; and if such authority be not deemed sufficient, the Board will apply to the Legislature for authority to make such arrangements with said society as will enable it to carry out its plans substantially as set forth in said proposition, and such as may be hereafter mutually agreed upon; which arrangements, so long as said society shall comply with the conditions thereof, shall be exclusive; reserving however, in all such agreements, the right of this Board to determine all questions as to said facilities so far as they relate to the laying out and occupying of said grounds.

BOSTON HARBOR.

On the 13th of last May the Board received the following communication:—

BOSTON MEMORIAL ASSOCIATION, Inc. 1880.

BOSTON, April 30, 1887.

[Arbor Day.]

To the Hons. BENJAMIN DEAN, PATRICK MAGUIRE, JOHN F. ANDREW,
Park Commissioners:—

GENTLEMEN,—The Boston Memorial Association respectfully calls the attention of the Boston Park Commissioners to the importance of restoring the islands in the harbor to their original beauty by the judicious formation of plantations of trees.

Many of these islands are owned by the City of Boston, and several by the United States Government.

Their present condition is one of almost entire barrenness, and the soil of some of them, at least, is well adapted to a growth of trees.

Would it not add very much to the beauty of the harbor if they could be properly planted; and is it not practicable for the City of Boston, or for private enterprise, or for both combined, to begin on some plan either permanent or experimental, with the above end in view?

The Boston Memorial Association has full confidence in the capacity,

resources, and experience of the Boston Park Commission to consider and answer the above questions, and earnestly hopes that the matter may receive its careful attention.

In behalf of the Boston Memorial Association, and by order of its Executive Committee.

Respectfully,

(Signed) M. P. KENNARD,

President.

HENRY F. JENKS,

Secretary.

The communication was referred to the Landscape Architect to report on the feasibility of re-foresting the islands, and for suggestions as to the best method of carrying out the undertaking. Several trips to the islands were made by members of the Board, accompanied by Mr. Olmsted, and on some of them by Mr. M. P. Kennard, President of the Boston Memorial Association, Mr. Jos. Story Fay, and Mr. Augustus Russ, to the latter of whom the Department is under obligations for the use of his steam-yacht. Mr. Fay's experience in tree-planting is referred to in the report of Mr. Olmsted to the Department. At the suggestion of Mr. Olmsted an opinion of the proposed undertaking was obtained from Mr. Robert Douglass, who has had a larger experience in this direction than any other man in the country. He attested his conviction of the likelihood of success by offering to undertake the work under contract, his compensation to be conditional upon the results obtained. This offer, which is given more fully in Mr. Olmsted's report, indicates approximately what can be accomplished if the City Council should think well of intrusting the Department with this enterprise. The Board has been assured of the coöperation and assistance of the departments having the direct charge of islands owned by the city and their willingness to

assist in the planting of such of the lands under their respective jurisdiction as could be spared for the purpose, the direction and control of the work to be in the hands of this Department, in order that a uniform policy may be pursued, and consistent results anticipated.

It is recommended, if the matter receive your favorable consideration, that annual appropriations of \$5,000 be made for six years, and that the Board be authorized to make contracts, extending over that period, for the planting of so much of the surfaces of the islands as may be placed at its disposal by the city departments having the custody of the same, and by the United States government; also, that the Board be authorized to supply to owners of private lands, within or on the harbor, suitable stock for plantations, or to contract for making such plantations at cost, all money so received to be credited to the appropriation; also, that the Board of Directors of Public Institutions, and Board of Health, be requested to extend such aid as may be in their power to the work of planting so much of the islands under their charge as may be available for the purpose.

The beauties of the islands and capes of Boston Harbor, even in their present bare and almost treeless condition, have received the favorable comment of strangers as well as of citizens. How much more would be their power and effectiveness if these counsels and action are adopted! Mr. Olmsted's report on this and other important matters of general popular interest will be found in the Appendix, together with a chart, and a description of the bay and harbor compiled from the "Atlantic Coast Pilot," which are here printed for convenient reference.

PLAYGROUNDS.

April 26, 1887, the Board received the following order : —

CITY OF BOSTON,

IN COMMON COUNCIL, April 14, 1887.

Ordered, That the Board of Park Commissioners be requested to report upon the cost and advisability of establishing a suitable playground of five or six acres, for boys and athletic clubs, on the waste land west of Boston Street, or between Dorchester Avenue and the Old Colony Railroad, and north of Mt. Vernon Street, or upon the Cow Pasture. Passed. Sent up for concurrence. In Board of Aldermen, April 18, concurred. Approved by the Mayor, April 21, 1887.

A circular letter containing the purport of the order, inviting propositions from owners to sell lands for the purpose, was prepared May 10, and sent to all persons owning one or more acres in the localities named. The only complete proposition was received from the Trustees of Estates of James C. Ayer, Francis B. Hayes, and Arria Cotton, for $3\frac{5}{10}$ acres, $1\frac{6}{10}$ acres, and $\frac{7}{10}$ acres, respectively, for 20 cts. per square foot, a total area of six acres, including $\frac{2}{10}$ of an acre belonging to Kate Marcus. This property lies between Dorchester Avenue and the Old Colony Railroad, and between Kemp and Locust streets. The dimensions of the lot are 440 feet on Kemp Street, by 594 feet in depth. It is rectangular in shape, and at marsh grade. The cost of the lot at the price named by the owners would be \$52,272. The site is well adapted for the purpose, and is about in the middle of the whole area indicated in the order. No other definite offers of a suitable area were received, although it was intimated by some of the owners of vacant lands on the Cow Pasture that, if the Board were in a position to accept such a proposition, a sufficient amount of these lands could be offered to the City at a reasonable price; one part-owner of several detached lots in this locality, none over three acres in extent, offered to sell at the rate of ten cents per square foot, which he stated would also be accepted by the other owners.

Several petitions for the laying out of small pleasure-grounds in various parts of the city were presented to the last City Council and referred to this Board. Two were from James H. Stark, requesting that the summit of Savin Hill, consisting of about ten acres, be set apart and placed in charge of this Board for park purposes, and that any further encroachment on the same by buildings be prevented, and setting forth that the inhabitants of Dorchester possess a valuable franchise or easement in said hill under the conditions of the grants made in 1636 and 1638, as per Dorchester town records, pages 24 and 40. The hill at that time was known as Rocky Hill, and later as Old Hill. The question of public rights in the hill was referred to the corporation counsel, who made the following reply : —

CORPORATION COUNSEL'S OFFICE,

BOSTON, June 30, 1887.

HON. BENJAMIN DEAN, *Chairman Park Commissioners* : —

DEAR SIR, — Having reference to your letter of the 25th ult., I have had the title to Savin Hill examined, and I am satisfied that the City has no rights therein, or that the public have no rights therein which would materially affect its value or the question of the acquisition thereof for park purposes.

Very respectfully,

E. P. NETTLETON,

Corporation Counsel.

A petition from Henry L. Pierce and sixty-one others, residents of Dorchester, that the ground known as Vose's and also as Baker's Grove at the Lower Mills, with additional land for a playground, be purchased by the city, was referred to this Board April 27. The Board visited the place and consulted with some of the owners. At the suggestion of the Board a proposition was made by the owners, on Dec. 2, offering about eight acres for \$33,117.91, — an average of

about ten cents per square foot, though one of the owners is ready to sell at about half that price, to further what he esteems a public benefit.

A petition from J. A. Hathaway and six others, residents of Brighton, asking that the grove at North Brighton, known as Stone's Grove, be purchased and set apart as a small park and playground for children, was referred to this Board on May 9. No estimate has been made of the probable cost of this project.

In the late inaugural address of His Honor the Mayor, and also previously in a special message to the last City Council, attention was called to the large amount of vacant lands and other properties not used by the city, which he recommended to be sold. Reference was made to some of these lands in the "Notes on the Plan of Franklin Park and Related Matters," supplementary to the Eleventh Annual Report of the Board, and a map showing their locations was published. Demands for playgrounds for the youth of the city are frequently made, which have been partially met in the past by hiring lands in different parts of the city. Might not some of these vacant properties, if found suitable and convenient for playgrounds and for open-air gymnasiums, be appropriated for such purposes, and might not others, not well situated or of insufficient area, be sold and the proceeds applied to the purchase of more suitable lands? If this can be done, and the whole matter of playgrounds be referred to this Board for action or for examination and report, it will cheerfully undertake the duty.

Respectfully submitted,

BENJAMIN DEAN,
PATRICK MAGUIRE,
JOHN F. ANDREW,

Commissioners.

Boston, Jan. 27, 1888.

APPENDIX.

REPORT OF THE LANDSCAPE ARCHITECT ADVISORY.

The Honorable BENJAMIN DEAN, Chairman of the Board of Commissioners of the Department of Parks:—

SIR, — In reviewing the operations of the Department during the last year, certain circumstances should be regarded that are not likely to recur. First, the City Councils had the previous year obliged all the works of the Department to be abruptly stopped, the forces employed to be disbanded, and the machinery to stand idle. Second, work was not resumed until after an unprecedented demand had been established for all classes of service required by the Department; contractors were loaded with engagements; no contract for park work could be made except at greatly advanced prices, and those taking contracts found it impossible to meet their obligations because suitable workmen could not be hired. Third, the force employed by the day has been agitated at frequent intervals by projects for securing higher wages or for giving less work for given wages. Fourth, notwithstanding a large advance of wages, it has been evident that many men have entered the service of the Department with no care to remain in it, and so many have been falling out that to the end of the season the force has had to be constantly and largely recruited with raw hands.

Taking these adverse circumstances into account, it is thought that the amount and quality of the work accomplished at all points should be considered satisfactory. There has been no departure from the general plans set forth in the past annual reports of the Department; but in Franklin Park, where much obstructive rock has been found below the surface, making difficulties of construction, there has been a good deal of elaboration and adjustment of details of the design.

Reports, which it may be thought desirable to append to the annual report of the Department, will be presented below upon a number of matters of public concern.

I.

THE IMPROVEMENT OF BOSTON'S ADVANTAGES AS A SUMMER RESORT.

Your Board has heretofore considered some aspects of this subject, and important operations are now in progress as the result of its deliberations, but the communication addressed to it last Arbor Day by the Boston Memorial Association, upon which a report has been asked, has obliged an inquiry to be made of broader scope than has hitherto been thought necessary.

Between the wharves of Boston and the sea, outside of Boston Bay, there are seventy-five islands and islets, fifty notable projections of the main-land with bays between them, some of which are the mouths of streams, and a great many shoals and reefs which are exposed, or upon which the sea breaks, at low water. Between all these there are innumerable sub-channels more or less navigable,

according to the stage of the tide and the depth of any object to be floated through them. The rise and fall of the tide varies from eight to sixteen feet, according to the age of the moon and the condition of the weather, and the tidal currents are liable to be strong and complicated. These circumstances not only make the harbor interesting because of what meets the eye of those passing through it or along its shores, but they give fleet, nimbly-turning boats a more marked advantage than they would otherwise have, and make close calculations and tact in trimming and steering them of more obvious importance than they are in harbors with fewer elements of picturesque character. Add to this the further consideration that from the time of the first settlers the people in Boston have been much engaged in fishing ventures, not only on the deep sea, but of a class to be pursued with boats of light burden, and the fact will be accounted for that there has always been an unusual interest among them in the modelling, building, rigging, and seamanship of small craft, both for commercial and for recreative use.

The city government has recognized this interest, and, in an exceptionally systematic way, wisely fostered it by the institution of an annual regatta with prizes to winners from the public purse. Latterly, at the suggestion of your Department, it has begun the building of a promenade pier, providing a fair outlook upon the harbor, and of a large basin especially as a mooring-place for pleasure-boats. With a possible exception in Venice, it is believed that the people of no other city in the world make as much or as good use of their harbor, otherwise than commercially, as those of Boston have been long accustomed to do, and that none take as much or as justifiable pride in the character of their small craft, and their dexterity in handling them.

The success of the "Mayflower," the "Puritan," and the "Volunteer" has called the attention of the world to the special talent thus gradually developed from the circumstances of Boston Harbor. It is, perhaps, more difficult for the people of Boston to realize the full value of their success than for others, taking a more distant view of it, to do so. A few incidents may be recalled to bring certain bearings of it better to mind.

This, for one:—To all appearances there had come, through inaction, to be scarce anything left of the old American regard for seafaring skill and prowess, when, one day last summer, through all the interior of the land, as well as in its seaports, hats everywhere went up with such enthusiasm over the result of a sailing-match of pleasure-boats, that no one could doubt that, in the heart of the nation, little provocation would be needed to stir all its old naval ardor into earnest action.

This, for another:—Certain men, of other parts of the country, send ten thousand dollars to a citizen of Boston as an expression of the gratification they have had in his work, adding, as an explanation, that, in their opinion, "nothing has, of late, redounded more to the credit of the country abroad" than the success of the "Volunteer," because of "the earnest concentration of ingenuity," of which it testifies, that Americans will be found capable whenever sufficient occasion comes to draw it out.

This, for yet another:—That, because of the special talent, bred, as has been shown, of Boston Harbor; which had been manifest in the successive triumphs of the "Mayflower," the "Puritan," and the "Volunteer," the master-workman of those pleasure-boats has been called to be a counsellor of the Secretary of the Navy, in a matter of vital consequence to the country.

And, lastly, this : that out of the recent history of Boston boats, and Boston pleasure-boating, measures of high statesmanship long culpably neglected, are plainly coming to receive a degree of attention that can hardly fail to have great results for the country. The two bills now before Congress looking to a naval volunteer or militia system, being examples of the manner in which this new current of popular disposition appears.

It is necessary to recall such facts as these, that too light a view may not be taken of that method of recreation in which Boston leads the world, and of those conditions of Boston Harbor out of which this leadership has grown.

Relatively to a large consideration of this subject attention is liable to be too much restricted to the more costly class of yachts. In Boston, boating is a thoroughly popular diversion ; interest in it is wide-spread. More than one quarter of all the registered yachts of the entire Atlantic, Pacific, and Lake coasts have their home berths in the waters of the city and its suburbs. The whole number of masted pleasure-craft sailing the harbor is at least seven hundred. A large proportion of these are small and inexpensive boats, and, of the larger, some are owned by clubs of industrious men, individually, of moderate means. Many of the owners live in the interior, coming to Boston and using their boats only during a summer's vacation from business.

It is to be considered, also, that boating is an amusement much enjoyed by many who take no part in it except as lookers-on ; and, with reference to the amusement the harbor affords to these, it must be remembered that, besides pleasure-boats proper, Boston has a large fleet of light fishing-craft, among which not a few are admirably fashioned and admirably sailed.

Owing to the enjoyment which the harbor offers many excursion trains are now run from a distance for the accommo-

dition of those wishing to visit its shores. A number of large hotels, steamboats, and local railroads have also been built for them. Hundreds of families live, for a few weeks every year, in tents, pitched at points looking upon the harbor, and, of late, numerous light, wooden bungalows have been built in situations first occupied in this way. Many sojourners in these come from a distance.

It will be evident, from these facts, that as, throughout the country, the number of men increases who can choose their dwelling-places independently of immediate money-earning considerations, and of men who are able and inclined to engage in pleasure-boating excursions, and that, as large numbers become interested in aquatic sports and seaboard scenery, the attractiveness of its harbor is to be reckoned no insignificant element of the trade and prosperity of the city. It will then be evident, further, that if its attractiveness, as a summer-resort, can be materially increased by a moderate outlay, it will be profitable to make such outlay.

In what, then, it is to be asked, other than in the play of



its large and lively fleet of fishing and pleasure craft, does the special attractiveness of the harbor consist? The adjoining diagram shows the picturesque disposition of the principal headlands, bays, and islands (outlined, approximately, at half

tide). The special attractiveness of the harbor lies partly in the contrast of the intricate passages and vistas among these, with the unbroken expanse of the ocean upon which it opens, and partly in the varied forms of the bluffs, crags, bars, beaches, and fens that form its shores.¹

What are the drawbacks to these attractive circumstances?

Chief among them must be recognized the generally hard-featured, bare, bleak, and inhospitable aspect of the headlands and islands. Let any one, passing through the harbor, imagine them clothed with foliage of any kind, and it will be felt how much more agreeable its character would be if they were generally wooded.

Stumps, that still remain upon the most exposed, the rockiest, and bleakest of the islands show that they formerly were wooded. Once cleared, a second growth has been prevented by cropping and pasturing. The land being then much more open than before to frost and drying heat, rains, gales, and salt spray, it has ever since been losing soil and the soil remaining has been losing fertility. Hence the scenery of the harbor has been and is every year being despoiled more and more of its original beauty; its artificial features are becoming more and more disagreeably conspicuous relatively to its natural features, and in these respects it is becoming less and less attractive.

The question whether the waste thus in progress can be arrested, and whether what has been lost can be recovered, is, happily, one to be answered by reference to the result of means used elsewhere for a similar purpose.

The difficulties to be overcome lie chiefly in the bleakness and dryness of much of the land most desirable to be planted; somewhat, also, at certain points, to its exposure

¹ A full description of the various natural features of the harbor will be found at p. 96 of the Appendix, compiled from the "Atlantic Coast Pilot."

to salt spray. They are such that trees of the sorts more commonly seen in the lawns, parks, cemeteries, and roadsides of the landward suburbs of the city could not be wisely planted. The suggestion offered by the Memorial Association is that the original forest may be restored. Should this be attempted no results are to be expected that can be brought in comparison with those which are, unfortunately, associated in most minds with the term landscape-gardening. The beauty to be gained through such an operation is not the beauty of clusters, clumps, groups, or any artfully studied combination of trees; much less is it that of trees admirable for their beauty singly. It is the beauty of large compositions as these may be affected, to one looking in any direction across the harbor, by broad masses of foliage palpitating over the rigid structure of the islands and headlands; lifting their skylines; giving them some additional, but not excessive, variety of tint, greater play of light and shade, and completely overcoming the present hardness of outline of their loamy parts, without destroying the ruggedness of their rocky parts.

Having such an end in view, the trees to be planted will be of the same kinds with those formerly growing on the ground. That they may help one another to overcome the difficulties of the situation they will, when planted, be small, pliant and adaptable, offering little for the wind to tussle with; they will be low-branched, and will be set snugly together. A large proportion of all, intimately mingled with the others, will be of species the growth of which, like that of the little white birch of our rural roadsides, is rapid while young but not of long continuance. These, after a few years, will be overtopped and smothered by trees of slower and larger growth, greater constitutional vigor, and more lasting qualities. The former will have served as nurses to the

latter while they are becoming established, and if timely thinning should be neglected, as it is so apt to be, they will gradually disappear by natural process before the permanent stock will be fatally injured by crowding.

Years must pass before the permanent growth can acquire a full-grown forest character, but almost at once the sapling plantations will give a pleasing softness and geniality to those elements of the scenery that are not contributive to its picturesque ruggedness. Three years after the planting is finished the harbor, as a whole, will have acquired a decidedly more good-natured, cheerful, and inviting character.

An impression is common that at most points of the harbor trees cannot be got to grow satisfactorily, and instances are referred to in which they have failed or, at the best, have grown very slowly and with distorted forms. So far as it has been practicable to ascertain, the trees, in these cases, have been ill-chosen and ill-planted, and the result has no bearing upon the proposition favored by the Memorial Association.

Reasons for confidence that, under a course of management judiciously adapted to the special difficulties of the situation, an undertaking of the kind that has been outlined would be successful, are found in experiences of which those of Mr. Joseph Story Fay, at Wood's Holl, supply an example.

The outer part of the sea-beaten promontory of Wood's Holl, had probably been devastated in the same manner as the islands of Boston Harbor. Thirty years ago it was even more bare of trees, bleak and cheerless than they are. As the result of operations which have been carried on within that period by Mr. Fay, about two hundred acres of it is now covered with dense woods of well-grown trees. Mr. Fay, visiting Boston Harbor islands last summer with the Com-

missioners, could see no reason to doubt that by similar operations upon them equally satisfactory results would be secured.

There is a large tract of barren land in a most exposed situation on the west coast of Lake Michigan which, a few years ago, was covered with drifting sand. Because it was supposed to be worthless, and that any attempt to improve it would be regarded as a "Folly," Mr. Robert Douglass chose to take it as a place to demonstrate the practicability of establishing forests under such special difficulties as the situation presented. He has been entirely successful, the sand is fixed and sheltered, leaf mould is beginning to accumulate upon it, and the ground is becoming comparatively moist and productive.

The Kansas City, Fort Scott & Gulf Railroad Company, of which the head-quarters are in this city, held in 1879 a body of bleak and arid land, of alkaline soil, naturally treeless. Some attempts to grow trees upon it had been unsuccessful, and it was generally believed to be incapable of bearing trees. In that year Mr. Douglass offered to take a contract to establish trees upon it, payment to be made him conditionally upon results. He was completely successful, and six hundred acres of the ground are now shaded by a thrifty and valuable wood. On this and other tracts, naturally treeless and supposed to present peculiar difficulties to the growth of trees, there are at this time three million flourishing trees that have been planted, under contracts with different landowners, from five to eleven years ago, by Mr. Douglass.

Mr. Douglass has had more experience in planting under trying circumstances, and has planted more extensively and successfully than any other man on the continent. It being known that he had a few years since critically examined the

plantations of Mr. Fay and others within reach of the sea spray, and that he had some personal knowledge of Boston Harbor, it was thought best to ask his judgment of the scheme under consideration. After preliminary correspondence Mr. Douglass expressed his opinion of it by offering to enter into a contract to carry it out. The terms of his offer will here be stated as an indication of what a man of his experience considers practicable to be accomplished, and at what outlay.

Supposing that the aggregate areas to be planted would not be less than four hundred acres in extent, Mr. Douglass would engage to establish plantations such as have been suggested; to care for them until the trees should be well established, in thrifty condition, and so completely shading the ground that any further cultivation of it would be unnecessary. For this service he would agree to accept, as his compensation, payment at rates, which, with a reasonable allowance for incidental expenses of the Department in connection with and supplementary to the work, would be met by successive appropriations for five years of six thousand dollars a year. Payment of Mr. Douglass' part to be made in instalments as the work satisfactorily advances, the last instalment, amounting to 16% of the whole, to be due only when trees to the number of eight hundred thousand are certified by qualified agents appointed by the Department to have been found well-rooted and thriftily growing upon the ground.

A compact statement is given on the adjoining sheet as to the position, area, ownership, and jurisdiction of thirty-seven islands; of the position and name of thirty-eight detached islets, ledges and beacons, and of the name, position, and some other particulars of fifty headlands, of Boston Bay.

The aggregate area of the islands is a little more than 1,300 acres. Of this the city owns 439 acres; the United States, 241 acres; and, of the remainder, 500 acres have but five owners.

So far as any part of this land has a productive value, it is chiefly because of the pasturage that is found upon it. On but few islands is this considered to be of more than trifling consequence. Where it is of any notable importance, it would, as a rule, be an advantage to have thickets planted along the shore borders of the high land, and clusters of trees at intervals through the pasture-ground, in the shade of which, when grown, cattle would rest.

On the islands owned by the city there are several public institutions, chiefly of a charitable character. Much of the land of these is cultivated, pastured, or occupied by buildings and yards, and, of that which is available for woods, it would be better that much should be planted under the direction and by the forces of the departments in charge of them. It has been ascertained that the heads of these are well inclined to undertake this work, and especially so if supplied by the Park Department with nursery stock for the purpose. On each of them, however, it is believed that there are bodies of land, generally of small extent, which might be planted by the Park Department under an arrangement such as that suggested by Mr. Douglass, while, substantially, the whole of some of the smaller would be available. Conference with the War Department leads to a belief that it would not object to make arrangements with the Commissioners under which considerable portions of the government islands might be planted by the Department. It has been ascertained, also, that private owners of other islands important to be planted are well disposed to coöperate with the city in carrying out the scheme. It is to be hoped that the purpose of the city

would likewise be aided by favorable action of towns bordering upon the harbor beyond the jurisdiction of Boston. A movement in this direction has already been made by the town of Quincy. It is also reasonable to assume that when a demonstration shall have been made of the practicability of growing trees upon the more exposed points, there will be a great deal of planting about the harbor independently of any arrangement with the city, as there is in all its landward suburbs; an increased value of the land being sure to follow.

It is believed, as the general result of this review, that if the Park Department should be provided with the amount of \$5,000 a year, for six years, to be used at its discretion for the purpose desired to be accomplished by the Memorial Association, it would, with such coöperation as it would be convenient for other departments of the city government to offer, be able to secure a substantial success. And it is believed that this success would have been gained with large profit to the city.

II.

THE OUTER PLEASURE CIRCUIT OF BACK BAY.

An important addition to the means before had in view, for the open-air recreation of the people of Boston, has been well advanced during the last year, independently of your Department. It is that commonly called, but by no means described, as the widening of Beacon Street. Its importance lies largely in the circumstance that it will form a short, direct, sylvan pleasure-way between the system of grounds preparing by the Department and the existing spacious but

heretofore comparatively remote, inland, isolated, and little used public pleasure-ground at Chestnut Hill.

Before the plans of this work had been matured a suggestion of the undersigned was cheerfully accepted by the movers of it looking to a considerable improvement of the Back-Bay part of the general park scheme. The advantages to be gained were also apparent to the Park Commissioners. They are more intelligently presented in the accompanying map of the Back Bay Fens than they could be by any verbal description. It will be seen that the broad road, planned to lead from Audubon Circle on Beacon Street to the Audubon Road, as formerly planned, completes a circuit passage in the outer part of the Back-Bay district, a mile and three-quarters in length, all tree-lined, and in every respect adapted to pleasure-driving and walking.

III.

NOMENCLATURE OF THE PARKWAY SYSTEM.

When the entire scheme has been carried out, towards the realization of which the works of your Department now in progress at Marine and Franklin Parks, the Arboretum, and Back Bay, are intended to promote parts, it will be plain that the complete system is of much greater value than the sum of the value of its different parts. But for some years to come those elements of its value which lie in the connecting parts of the scheme, will be but imaginary, and, as matters of imagination, but little taken thought of. Very few citizens have yet any clear idea of what is intended in this respect, or of the many advantages to be gained by carrying out the intention. Hence there is constant danger that other

undertakings, public and private, will be devised and prosecuted in a manner that will make costly, if not disastrous, complications.

For this reason any expedient is to be welcomed that will tend to make the idea of federation and continuity, between the several principal works of the Department, familiar to the public.

The term *Parkway*, hitherto used to designate the continuous and connecting thread of the system, is probably as expressive of this idea as any that can be devised, and is as likely as any to come easily into familiar use with those having no special interest in the subject.

But, assuming a general public use of this term for the entire continuous way from South Boston to Back Bay, it has been thought that convenience would require distinctive names to be given to different parts of it. With this conviction the Commissioners, in 1885, directed the names *Rumford*, *Longview*, and *Riverdale*, to be used as the designation respectively of parts of the Parkway between Boylston Bridge and Brookline Avenue. But these names are not as yet known to the general public, and it is now suggested for the consideration of the Board:—

First. That a uniform termination in all names to be applied to parts of the Parkway would, as it came into use, naturally aid in making the idea of continuity and unity familiar to the public, and, if such termination were short, simple and common, it would be in various ways a convenience.

Second. That the designatory parts of each local name might with advantage, as far as practicable without a harsh sacrifice of euphony, be derived from some topographical or historical local circumstance. For example, that part of the

Parkway in which the course of the old Muddy River is followed might, under the proposed rule, instead of being called the Riverdale Road be called Riverway.

It is not particularly desirable that that part of the Back Bay improvement, which is intended to serve at times for the storage of flood waters, should be familiarly known to the public by its technical designation of *the basin*. This term is useful when it is desired to refer to its essential engineering function, but, regarding it as an accessory of a public pleasure resort, the more that function can be kept in the background the better. Looking for a name not open to this objection, it may be remembered that in the annual report of the Department for 1879, in which the scheme was first set forth, the designed landscape character of the basin was described as that of a clean, highly verdant, *fenny* meadow, set between steep banks, upon which banks plantations would be formed to eventually have more of a wildwood than of a park or garden aspect. Professional critics then and afterwards expressed the opinion that this proposition was chimerical, and the Commissioners were urged to abandon the scheme as likely to be wasteful. It was admitted by the Department that the purpose to artificially form a salt fen of the character proposed was to be regarded as in some degree experimental. So long as the result of the experiment could be considered doubtful, it has not been best to give the place a name that would be appropriate only if it should prove successful. Its success is now so far established that next year, when the circuit road of the lower division of the basin shall be opened to the public, a sufficient approach to what was expected to be attained in the landscape character of its bottom will have been already accomplished to show that the result is not going to be unpleasing. It will, at least, be palpable, when

the aspect of the finished part of the bottom is compared with what was to have been looked for as the result of any other method of treatment of it at any time suggested, that the course pursued by the Department should be regarded as a matter for congratulation.

In this view it is submitted that it will now be in better taste to call the bottom of the basin by a name significant of its landscape character, than either by one bringing to mind its primary utility, or by one provoking comparison with grounds prepared with exclusive regard to their use as pleasure-resorts. It is therefore suggested that instead of being called the Back Bay Basin, or the Back Bay Park, the place should be called the Back Bay Fens, or The Fens; that the sylvan bank of the basin should be called The Fenside, and that so much of the Parkway as is carried on the bank should be called The Fenway.

IV.

BACK BAY AND STONY BROOK.

Under an Act of the General Court of the present year, new plans for the drainage of the Stony Brook Valley have been adopted, which will have the effect, at times, of rapidly throwing a much larger quantity of water into the basin at Back Bay, than, when this basin was designed, the Department had been asked to provide storage for.

In the report of the Department presenting the plan of the basin to the Mayor and Councils (1880), it was stated that according to the calculations of the City Engineer and the Superintendent of Sewers, a rise of water of one foot above

the salt vegetation of the Fens would occur but rarely ; a rise of as much as five feet, if ever, only at intervals of many years ; a rise of more than five feet, never. It was assumed that, with the means used to check and break down heavy swells (described in the report), the planted banks of the basin would be little injured by a rise of from one to two feet, and that after the soil at a higher elevation, up to five feet, should be well interwoven with roots of woody vegetation, although some damage from the higher floods might rarely occur, it would not be of an irreparable character.¹

But with the quantity of water which will be thrown into the basin under the new Stony-Brook drainage-plan more frequent and deeper floods are to be expected than had thus been provided for. The least of the unpleasant results to follow will be the occasional submergence of roads and walks that have been laid out above the highest previously assumed flood level. This will cause but temporary inconvenience and may be rightly regarded as of no great consequence. It is of much more importance that the higher the water in the basin, in any time of storm, the less effectual will be the precautions which have been taken to prevent a heavy swell from forming and spray from washing the higher parts of the bank, and the longer will the vegetation growing in the lower parts remain soaking in brackish water.

With the dash and undertow of a heavier swell the steeper upper slopes of the Fenside must be expected to be fretted, undermined and washed away and trees to be loosened at

The best account of the plan from the engineering point of view is to be found in a paper by E. W. Howe, Esq., C. E., printed by the Boston Society of Civil Engineers, 1881. The expectations above stated as to the amount of water to be provided for in the basin under the arrangements assumed, have thus far been sustained. In the great flood of 1885 the water in the basin rose at no time more than three feet above the normal level.

their roots, blown down and thrown out. It may now be thought that this is a matter, also, of but little consequence ; that the bank may be mended and new plantings made. But if the trees should have been allowed to grow to good size, all experience shows that such an occurrence would excite much popular indignation.

Had the requirements now to be made upon the basin been made when the plan was called for, provision would have been advised for them, either by an enlargement of the present basin ; by flood basins to be formed higher up the stream, or by a conduit discharging directly into Charles River. But either of these expedients would now be so costly that the adoption of it is only to be expected under the immediate pressure of a public catastrophe.

Presuming that neither will be soon adopted and that the risk must be taken of an occasional soaking of the roots of the Fenside Woods in brackish water, it is probable that the worst injury to be apprehended under the present arrangement might be guarded against in a comparatively inexpensive way by reinforcing with rocks the face of parts of the bank which are from two to seven feet above the level of the Fens. Nothing like a complete paving of the surface would be necessary. Using chiefly rocks as large as could be conveniently handled without a derrick, and placing them with studied irregularity, and not with perfect continuity ; training creepers over them and letting trees and underwood grow up between them, they would, after a few years, be inconspicuous. In the end they would give a more natural and more agreeable aspect to the bank, while they would prevent land-slides, and any considerable undermining of the trees.

The public needs to be often asked to bear in mind that the cost of the basin in the Back-Bay district, preparing by

the Park Department, is a necessary expedient for the economical drainage of another district of the city, parts of which are more than six miles away from the Back Bay.

TREE-CUTTING ON FRANKLIN PARK.

In the proper order of the work of Franklin Park many trees must be removed the coming season. To those who consider this operation without regard to the leading general purposes of the adopted plan of the park, the operation will appear a grievous one. During the last two years the Department has taken much pains to make the public familiar with these purposes. To this end a carefully prepared explanation of them was printed, with a map of the park, which has been circulated in different forms in large numbers. It has been reproduced in the leading daily and weekly newspapers, and copies, on cardboard and in the form of roller-maps, have been hung on the walls of many offices and places of general resort. Several thousand have been distributed to individual addresses. Copies have been posted in the park, and, to aid those who might wish to trace out the plan on the ground, numerous guiding stakes have been set. Not a single remonstrance or objection to the general plan has been made, except where, along its boundaries, it has been supposed that individual interests might have been better promoted.

One feature of the plan, as thus fully made known in advance, is a series of roads and walks through existing woods. In planning these care has been taken that they shall involve the least possible injury to the natural features, and the least possible destruction of the finer and more promising trees. Necessarily many must be taken out to make way for the roads and walks, and more that slopes of natural char-

acter may be formed where the existing natural surface has to be broken. Not unfrequently, also, insignificant or decaying and unpromising trees are to be removed that others may be better developed, and that natural features of various kinds may be better brought into view. No trees will be removed at any point without careful consideration.

Respectfully,

FREDERICK LAW OLMSTED,

Landscape Architect Advisory.

Boston, 30th December, 1887.

CITY ENGINEER'S REPORT.

OFFICE OF CITY ENGINEER,

CITY HALL, BOSTON, Jan. 18, 1888.

HON. BENJAMIN DEAN, *Chairman Board of Park Commissioners*:—

SIR, — I herewith submit the following report of work done and of the matters of interest in connection with the work placed under my direction by your Board; the work being continued under the immediate charge of Assistant Engineer E. W. Howe:—

THE PARKWAY. — BACK BAY FENS.

Excavation of Waterway. — Upon the passage of the appropriation for Park Construction, work was at once begun putting in order the dredging-plant, which, having been in use for five years, needed extensive repairs.

Early in April the excavation of the waterway through the marsh at the southerly end of The Fens was resumed. This work has been continued through the season, and the water-

way completed as far as the location of the proposed bridge at the junction of the Fenway and Audubon Road. Work in this direction can go no further until the additional land required between this point and Brookline Avenue is secured, as the material to be excavated from the waterway will be needed for filling on the Parkway and cannot now be disposed of without encroaching upon private lands. Unless this work can go on during the next season the dredging-plant will have but a few weeks' work to do.

In addition to the above, a large amount of work was done in trimming up portions of the shores, and of the bottom of the basin, which had been passed by in previous seasons.

Grading of Marsh. — The grading of the large area of marsh north of Agassiz Road has been completed, the area graded the past season being 7.6 acres. A portion of this area has been covered with marsh-sods cut from the old marsh, and the balance of the area is to be seeded with marsh grasses. The material for grading was excavated by the dredger, loaded on scows, and unloaded and moved into place by wheelbarrows. On account of the long distance a large part of the material had to be moved over soft ground the work has been slow and expensive.

Drainage. — Drains and catch-basins have been built in all that part of the Parkway north of Agassiz Road. The length of drain laid has been 2,700 feet, the number of man-holes built 5, and the number of catch-basins, 26. The drains on Boylston Entrance, and on the street between Boylston Entrance and the B. & A. R.R., discharge into a sewer built by the Sewer Department in 1886. The other drains, on the east side of the Parkway, discharge into the covered channel of Stony Brook, except two catch-basins on the ride, which have an outlet into the waterway.

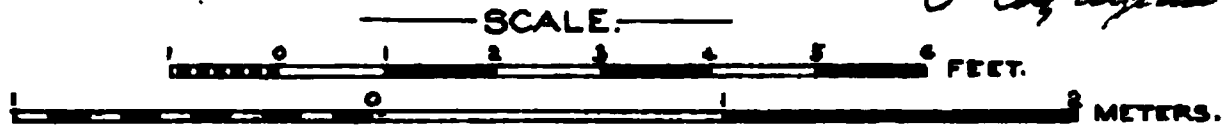
The drains on the west side of the Parkway discharge into the water-way at a point about 250 feet north of Agassiz Bridge. An outlet for the drains to be built on Agassiz Road has been constructed.

Man-holes have been built at every change of line and grade, and catch-basins have been built on each side of the roadway about 300 feet apart.

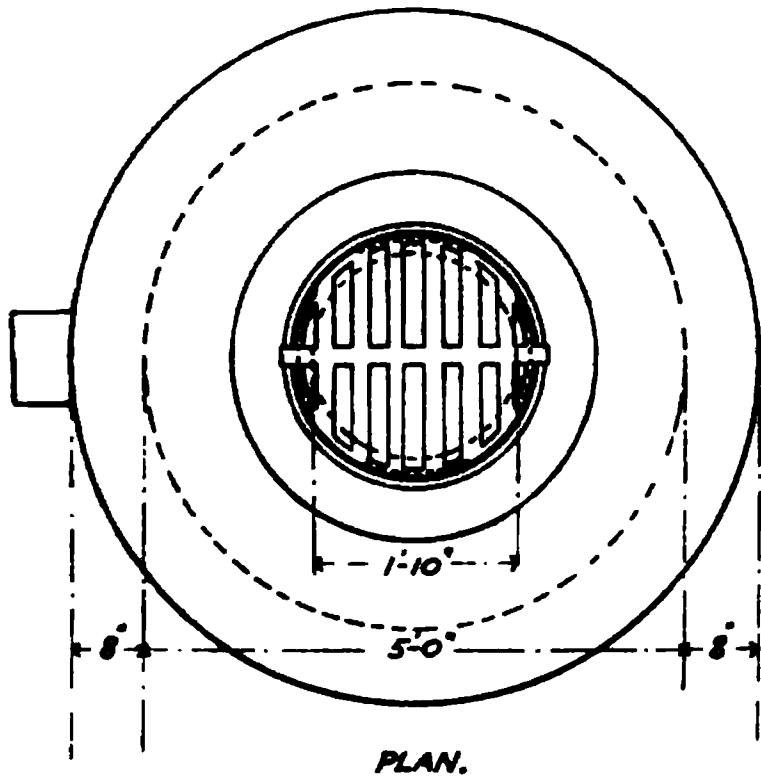
BOSTON PARK DEPARTMENT.
THE PARKWAY-BACK BAY FENS.
CATCH BASINS.

JAN. 1888.

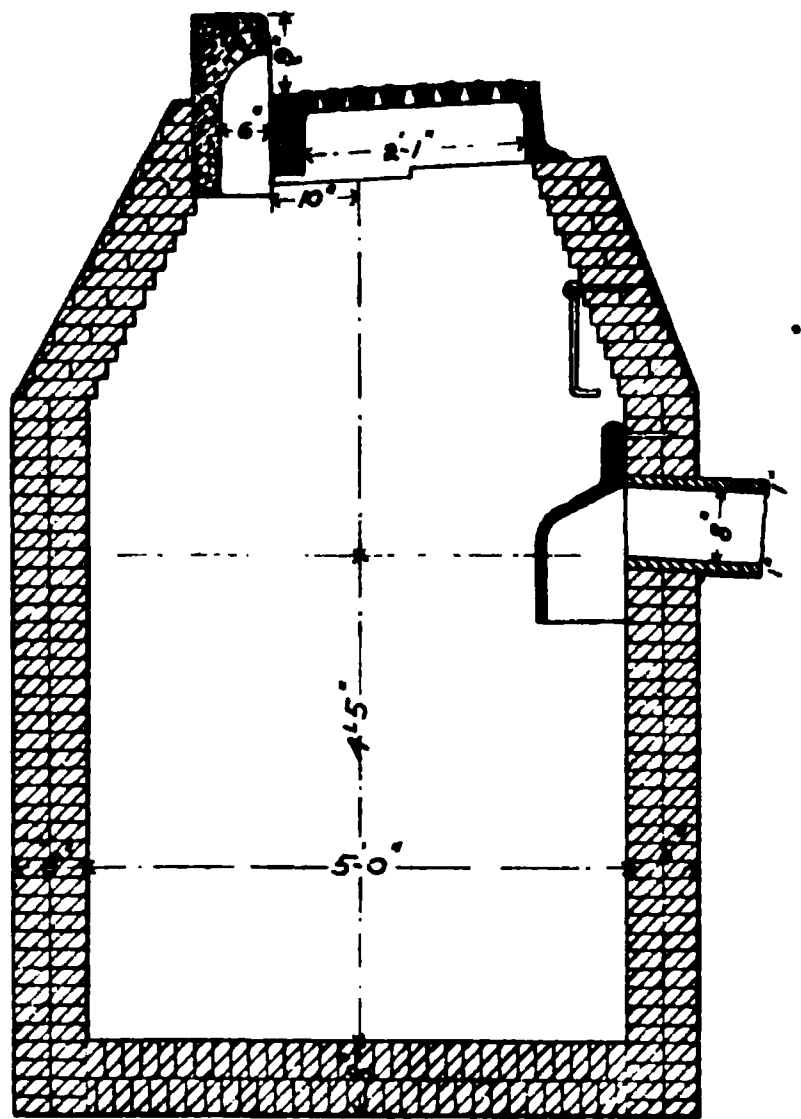
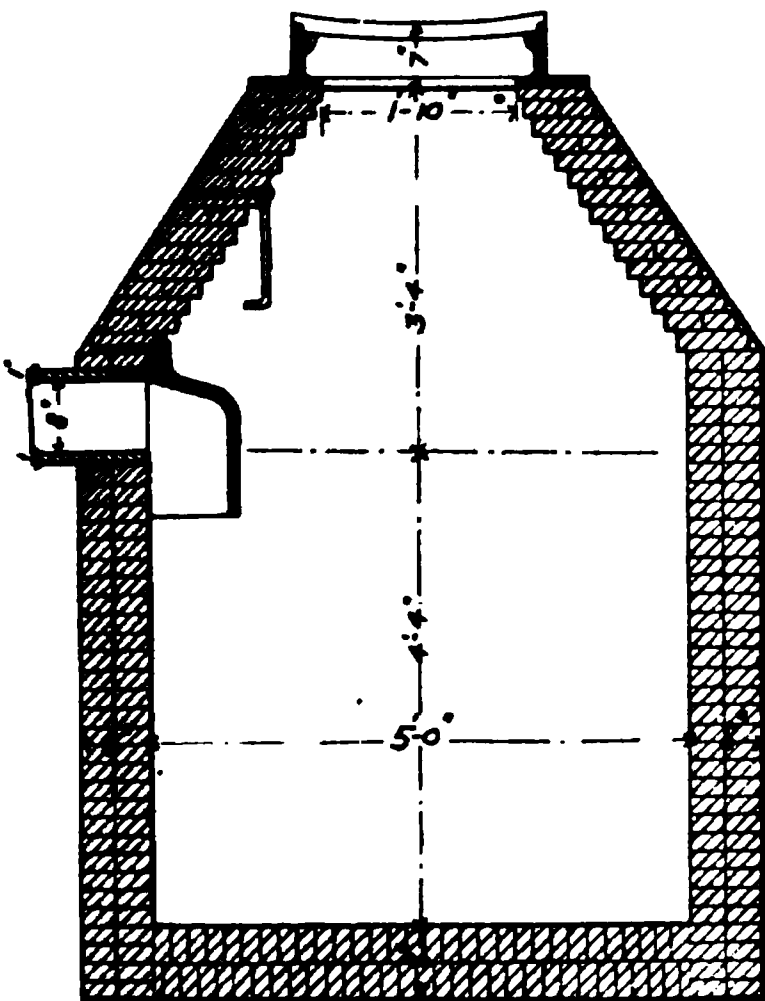
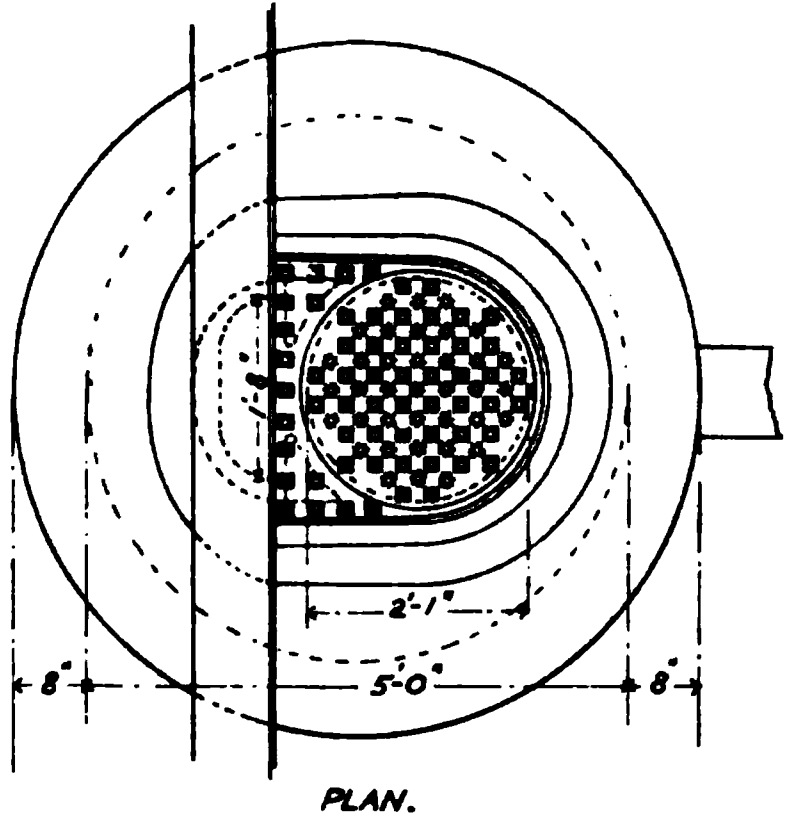
William Jackson
City Engineer



CATCH BASIN WHERE THERE IS NO CURBSTONE.



CATCH BASIN AT CURBSTONE.



The accompanying drawings show the forms of catch-basins built.

Roadways and Walks. — The curbstones were set and gutters paved on a part of the roadway in 1885. In addition, during the past year, 8,849 lineal feet of curbstone have been set, and 3,953 square yards of gutters paved; 3,600 lineal feet of curbstone and about 32,000 paving blocks are on hand.

The grade of Boylston Entrance was raised to meet a change in the established grade of Boylston Street; the curbstone and gutters were taken up, the entrance filled to the new grade, and the curbstone reset, and gutters repaved. The roadway from Commonwealth Avenue to Westland Avenue and the roadway at Boylston Entrance have been finished.

The roadway of the west side of the Parkway from the B. & A. R.R. to Agassiz Bridge has been nearly sub-graded, and about one-half of it is stoned, so that, the curbstones and gutters being in place, but little work is needed to complete this section. The completion of Agassiz Road has been delayed on account of the bridge not being completed in season to allow the old channel across the road to be filled. The bridge is now so far finished that it can be used, and the curbstone being on hand for this road, it will take but a short time to complete it after the next season opens. The roadways have been constructed in the following manner. The roadbed was carefully graded to 8 inches below the surface of the finished road and thoroughly rolled. The curbstones were first set; the gutters were paved with rectangular granite blocks, for a width generally of 4 feet, the blocks being laid in rows at right angles to the line of curb; the surface of the paving at the curb is 7 inches below the top of the curb, and rises 2 inches in the width of 4 feet. The roadway was then covered with broken stone; the stone was broken to sizes about as follows: for the first 4 inches in depth about 4 inches in diameter; then 3 inches in depth 2½ inches in diameter; then 1 inch in depth about 1 inch in diameter; then a layer of screened gravel or fine stone screenings from the crushers was spread on top; each layer was well watered and rolled with 2½-ton sectional grooved rollers. The surface of the

returned on lines nearly parallel with the roadway. The foundation is a 4-inch spruce platform supported on spruce piles, capped with 10 in. \times 10 in. spruce caps; a line of sheet piling is driven across each end of the platform.

Granite masonry abutments and piers, in courses of 2-feet rise, were built on this platform to the spring line of the arches. The arches, except at the ends, are of brick, the middle one being 16 inches in thickness and the others 12 inches in thickness. The ends of the arches are of Roxbury stone boulders, dressed sufficiently to make good radial joints, the exposed faces being left in their natural condition. The voussoirs are laid in cement; but the spandrels, the wall above the arches, and the wing-walls above the level of the water are of selected Roxbury stone boulders, laid dry with pockets of loam between and behind them so that vines or small shrubs can be grown over the face of the wall. The walls have considerable batter, the cross-section having a curved profile. The line of the wall is on a curve, and above it the bank will slope upwards to the line of the walk, where there is to be a low parapet. Over the middle arches, on either side of the bridge, small bays will be built out from the walk. This work, with the exception of the parapet walls, will be completed in a few weeks. The stone for the face walls was brought from Franklin Park, having been taken from old field fences. The arches and abutments have been back-filled, and as soon as the ice breaks up in the spring, so that the dredger can work, the dams will be removed, and the present channel across the road filled to grade.

Loaming and Planting.—Quite a large area in detached portions, including spaces for trees between the walks and drives, have been graded with loam, and a considerable amount of planting has been done under the immediate direction of the Assistant Landscape Gardener. A force of gardeners and laborers has also been employed throughout the season, under his direction, in the care of the plantations.

ARNOLD ARBORETUM.

Work was resumed here on February 3, quarrying stone for the driveways. This was continued until the frost was sufficiently

out of the ground to allow work on the drives. The drive to the summit of Bussey Hill was partially sub-graded in 1885. This work was continued and completed late in the fall. The grading of the top of the hill required the moving of a large amount of material, and, as it was all moved up-hill, it was expensive. The grading of the lower part of this drive, near its juncture with the drive around the hill, furnished a large amount of material which was used for filling the drive across the small pond in rear of the college buildings.

The drive was constructed in the following manner: the roadway was sub-graded so as to allow a depth of one foot for stone, the surface having a pitch of 1 in 20 from the centre to the gutter.

Catch-basins were built on each side of the roadway about 300 feet apart, with outlets on the side hill below the driveway. Tile drains were laid on each side of the driveway, for draining the subsoil; the one on the up-hill side was on the outer line of the sidewalk, while the drain on the down-hill side was on the line of the gutter; these drains were laid at a depth of 2 feet 6 inches below the surface, and they discharge into the catch-basins.

The gutters were then excavated 6 inches below the sub-grade of the roadway, and filled with screened gravel as a foundation for paving. The gutters are 3 feet wide, of cobblestones which were picked out of the excavation. A stone foundation 9 inches in thickness was laid on the roadway. After breaking down all unevennesses of these stones they were covered with 3 inches of crushed stone from $2\frac{1}{2}$ to $1\frac{1}{2}$ inches in diameter, well rolled, and this was then covered with screened gravel or stone dust thoroughly watered and rolled to a hard surface. The walks are separated from the gutters by a border of loam 2 feet wide and $1\frac{1}{2}$ feet deep. The walks have a fall of $\frac{1}{4}$ inch to a foot, from the outer edge to the loam border. They are constructed of 6 inches of crushed stone, covered with stone dust well compacted by watering and rolling.

The driveway from South to Centre Street has needed but slight repairs during the year. Early in the spring a short length of gutter was relaid, it having settled out of shape, and in the fall the whole surface received a thin coating of stone screenings, which was thoroughly rolled.

The spring or reservoir at the foot of Bussey Hill near the drive, from which the college obtained its water supply, had been partially drained by the building of the drive, so that in dry weather a sufficient supply of water could not be easily obtained. To remedy this, a well was dug to a depth of about 8 feet below the bottom of the spring, and curbed with a dry stone wall; it has given an ample supply of water.

FRANKLIN PARK.

Work was begun here early in April. The Playstead was first cleared of stone, the stone being broken up and deposited where it could be conveniently used on the driveway. A large area, about 9 acres, being too low to be drained, the soil was removed, and it was then filled, the greatest depth of filling being 6 feet; the filling came from the excavations for the driveway and its adjoining slopes. After the filling was done the soil was restored; drains were laid for draining the Playstead; the field of 27 acres received a top dressing of stable manure and other fertilizers, and was then ploughed and tilled through the summer. In September grass-seed was sown, which, before cold weather set in, was well started.

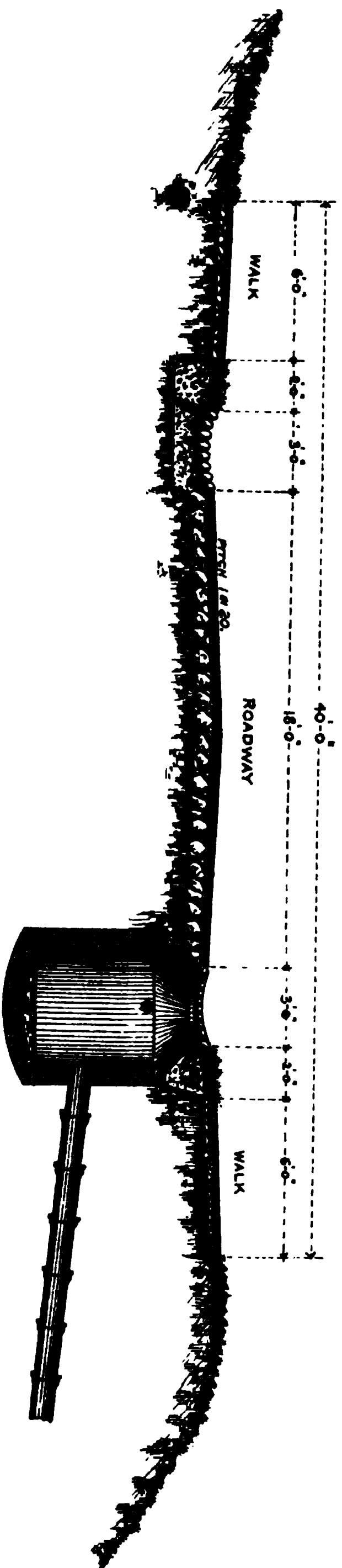
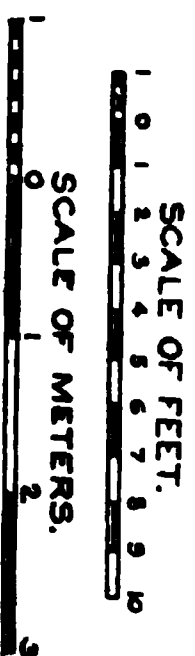
The grading of the drives around the Playstead has been carried on through the season, and is substantially completed. About 8,200 square yards of roadway has been ballasted, of which about 6,000 square yards are covered with crushed stone and only require covering with a coating of binding gravel or screenings from the crushed stones to be completed; 2,246 square yards of gutters have been paved with rectangular granite blocks; 6,740 square yards of walks have been covered with crushed stone, and 1,000 square yards entirely finished. Catch-basins and drains have been built for draining the whole of the drives around the Playstead, except for a short distance near the entrance to The Country Park. Usually 2-inch tile drains have been laid under the gutters on each side of the drive. Generally the method of construction of the driveways is the same as that described for the Arboretum, except that the roadway, gutters, grass border, and

BOSTON PARK DEPARTMENT.
ARNOLD ARBORETUM.

CROSS SECTION OF DRIVEWAY TO TOP OF OPEN HILL.

JAN. 1888.

William Jackson
City Engineer



walks are wider at Franklin Park than at the Arboretum, and the gutters are paved with granite blocks instead of cobblestones.

The catch-basins both here and at the Arboretum are of the form shown in the accompanying sketch. The total length of vitrified pipe-drains laid is 4,397 feet, varying in diameter from 8 inches to 18 inches. The length of tile drain is 7,200 feet, 2 inches and 3 inches in diameter. The number of man-holes built is 5, and the number of catch-basins 25.

A stone-crushing plant was purchased, and this has crushed all the stone used for surfacing the drives and walks.

About 1,200 lineal feet of the circuit drive around The Country Park has been graded, and work on this drive is now in progress.

The Overlook. — The wall which supports the Overlook has been completed, with the exception of the coping. The walk which the wall supports has been graded, and covered with crushed stone. The site of the proposed building has been partially excavated, and a drain to connect the building with the sewer in Sigourney Street is being built.

Administration Buildings. — The dwelling-house at the corner of Williams and Walnut streets has been occupied as an office for the police and engineering forces since the park was laid out. During the past season there have been built in the rear of it a carpenter shop, a blacksmith shop, and a yard and sheds for the storage of materials and tools.

The dwelling-house and stable have been painted, as have also the dwelling-house and stable occupied by the Assistant Landscape Gardener.

MARINE PARK.

At the beginning of the season changes were made in the building at the entrance to the pier to furnish larger accommodations for women and children, and also to provide a kitchen for the refectory.

A small amount of grading was done where the grading of Q Street had left some dangerous slopes on the park line.

Considerable filling has been dumped on the flats by parties who

have been dredging in the vicinity. A portion of this filling has been of gravel, which will probably remain where deposited ; but the balance, being clay, may be washed away by the action of the waves.

Wooden Pier.— No repairs have been required on the wooden pier.

The number of lamps under the shelter at the outer end of the pier was increased, and a style of lamp purchased which was better suited to the locality and conditions than those first used.

Iron Pier.— A contract was made on July 11 for the construction of a permanent iron pier, extending from the temporary wooden pier. The length of iron pier contracted for is 12 spans, or 741 feet, with the option on the part of the Commissioners of requiring an additional 5 spans, or 308 lineal feet to be built. The contractors began work on the ground September 9, and at present have sunk the foundation columns for 6 spans, and the columns are partially filled with concrete.

A large amount of iron-work for the superstructure is on the ground, and everything is in good shape for going on with the work as soon as the weather is suitable for placing the concrete.

WOOD ISLAND PARK.

Upon Arbor Day about 100 trees were planted upon Neptune Road, the soil for the same having been deposited in 1885.

On the 27th of April a contract was made for building the abutments for a bridge over the Boston, Revere Beach, & Lynn R.R. Work was begun on May 9, and completed December 9.

CHARLES RIVER EMBANKMENT.

A force was set to work here on August 26, grading the grounds. Nearly sufficient material was on the ground for the purpose, the Embankment having been, for the past two years, a free dumping-ground for clean earth, or other material suitable for filling. A large amount of ashes has been deposited on the grounds by the Health Department. The whole of the Embankment has been graded to a sub-grade, with the exception of the

portions occupied by the Paving Department and the Commissioners of West Boston Bridge. The force is now engaged covering portions of the grounds where ashes were used for sub-grading with a layer of clay.

The gymnastic ground at the northerly end of the Embankment has been covered one foot in depth with gravel dredged from Charles River. A contract was made October 31 for covering the areas to be planted with loam. This work is now in progress, and it is expected to have it completed in season for planting in the spring.

COVERED CHANNEL OF MUDDY RIVER.

This conduit, damaged as described in the report of the City Engineer for 1884, was repaired in 1885, but a length of about 650 feet received but slight repairs at that time, it being thought that the settlement and consequent distortion had ceased. It, however, continued to grow worse, and about a year ago it became necessary to support it by interior bracing. This bracing still remains in the conduit, but is an obstruction to the flow of water, and is liable to cause serious trouble. This section will have to be practically rebuilt. Frequent examinations of the whole conduit have been made, and no deterioration has been discovered in any other part of it.

IN GENERAL.

A large amount of work, not described in the foregoing account, has been done, such as the making of surveys, plans and estimates for work to be done in the future.

During the past year an unusually large amount of work similar in character to that on the parks has been in progress in this vicinity; consequently there has been great difficulty in securing competent workmen, even at the advanced wages which it has been necessary to pay. Contractors have been unable to obtain materials promptly, and this, with the high price of labor and materials, has caused frequent delays and unusually high prices.

In consequence of these conditions, which could not have been foreseen when the estimates were made, the cost of the work done this season has been in excess of that estimated, and the delays consequent upon the difficulty of obtaining labor have retarded the work so that the volume of work done during the season was less than was expected.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

VISITORS TO MARINE PARK.

Extracts from reports of the Special Officer on the park : —

July 14, 1887. — Nothing of unusual note occurred during the week until the city's band concert, last night, which was largely attended by a very appreciative and orderly assembly. The pier seems to be growing more and more popular as the season advances, and underneath the shelter it is largely patronized by family parties, who come down to spend the day, and bring their luncheon and babies with them ; and, to judge from the expressions heard on every side, they would rather spend the day there than down at the beaches, because it is so easy of access from the city, and the sea-air is just as pure.

Sunday, July 17. — By actual count for 15 minutes (from 2 to 2.15 P.M.) 878 persons passed on the pier on their way down, and it was impossible to count them after that.

Tuesday, July 19. — Larger crowd than usual, on account of band concert.

Saturday, July 30. — The visitors arrived the first thing in the morning, and there was a steady stream all day. Should say about 600 children were wading in the water and rolling on the pier under the shelter.

Sunday, July 31. — The attendance to-day was simply enormous ; a continual stream from 8 A.M. till after 9 P.M. I should judge about 5,000 children and 40,000 adults visited the park.

Monday, August 1. — About 300 children visitors.

Wednesday, August 3. — Large attendance of adults, and about 400 or 500 children.

Thursday, August 4. — The Boston Female Asylum for little girls, located at 1008 Washington Street, Mrs. Rich, Matron, had a picnic on the park, with 72 children and 6 teachers, and said they enjoyed it very much. Outside of that there were about 3,000 adults and 400 children.

Friday, August 5. — Attendance about 300 children and 900 adults.

Sunday, August 7. — There were fully as many visitors to-day as last Sunday. In the afternoon every seat was occupied under the shelter, and as soon as vacated by one party two or three eagerly sought it; and so it continued until I was relieved at six o'clock.

Monday, August 8. — About 200 children and between 600 and 700 adults visited the park.

Tuesday, August 9. — About 400 children and 700 adults.

Wednesday, August 10. — About 300 children and 500 adults.

Friday, August 12. — Between 300 and 400 children and 800 adults.

Saturday, August 13. — About 1,000 children and nearly 4,000 or 5,000 adults this afternoon.

Sunday, August 14. — About 20,000 visitors, including young and old.

Monday, August 15. — Quite a large number of visitors for Monday. From 2.30 till 6 o'clock every seat on north side and end of pier was occupied by ladies and children. We had all of 400 children and about 700 adults.

Sunday, August 21. — About 20,000 adults and 3,000 children.

Friday, August 26. — A dog swimming-match took place off the beach, and the visitors were more numerous than usual. About 3,000 adults and 1,000 children were on the beach and pier witnessing the sport.

Sunday, August 28. — No attendance of visitors in the morning, but after dinner we had, up to 6 o'clock, about 10,000 or 12,000 adults and 2,000 or 3,000 children. We also had a pho-

tographer from the Engineer's office taking views of the pier in the afternoon.

Tuesday, August 30. — There were about 1,500 visitors to-day ; put a stop to an argument among yachtsmen about the relative qualities of the "Volunteer" and "Thistle," on the pier, as they were attracting a crowd.

Wednesday, August 31. — Quite chilly all day ; few visitors till after 6 o'clock, when the wind changed, and brought out about 3,000 people to the city band concert.

Thursday, September 1. — About 1,000 adults and 400 children.

Sunday, September 4. — The visitors numbered about 10,000 persons, and were very orderly.

Monday, September 5 (Labor Day). — About 15,000 visitors, and order reigned all day.

Sunday, September 11. — Very chilly at park ; visitors were nothing in comparison to last few Sundays.

Saturday, September 17. — About 500 visitors.

Sunday, September 18. — About 8,000 or 10,000 visitors.

Monday, September 19. — About 300 visitors.

Tuesday, September 20. — About 300 adults and 100 children.

Sunday, September 25. — Weather pretty chilly ; about 2,000 visitors ; very quiet.

Wednesday, September 28. — Pleasant to-day, and about 300 visitors ; very quiet and orderly.

Sunday, October 2. — About 1,500 visitors up to 4 P.M., when the rain drove them home.

Wednesday, October 5. — Large number of visitors, mostly ladies, this afternoon.

Saturday, October 8. — About 400 to 500 visitors.

Sunday, October 9. — We had about 4,000 visitors, and, to judge from their conversation, the "Volunteer" and work on the iron pier were the attractions.

Monday, October 10. — 500 visitors, mostly ladies.

Sunday, October 16. — About 4,000 visitors all day, and the attraction was the new pier.

Sunday, October 23. — About 4,000 visitors looking at work on new pier.

Sunday, November 13. — About 2,500 visitors, including men, women, and children, who were mostly interested in the construction of the new pier and the work on the adjoining street.

Thursday, November 23. — The attendance of visitors for the week has been pretty slim, with the exception of Sunday, when we had about 2,500 all day looking at the work on the new pier.

Sunday, November 27. — 3,500 or 4,000 passed down the pier, the attraction being the work on the new pier.

PARK ORDINANCES.

IN BOARD OF PARK COMMISSIONERS, Aug. 20, 1886.

Voted, That the following rules, under the title of Ordinances, be adopted for the use and government of the Public Parks. *Provided, however*, that said rules shall not invalidate any pending prosecution or procedure, or any liability of any person for breach of any previous rule.

The Board of Park Commissioners of the City of Boston, by virtue of its authority to make rules for the use and government of the Public Parks of said city, and for breaches of such rules to affix penalties, hereby ordains that within the Public Parks, except with the prior consent of the Board, it is forbidden : —

1. To cut, break, injure, deface, defile or ill use any building, fence, or other construction, or any tree, bush, plant or turf, or any other thing or property.

2. To have possession of any freshly-plucked tree, bush or plant, or portion thereof.

3. To throw stones or other missiles ; to discharge or carry fire-arms, except by members of the Police Force in the discharge of their duties ; to discharge or carry fire-crackers, torpedoes, or fire-works ; to make fires ; to play musical instruments ; to have any intoxicating beverages ; to sell, offer or expose for sale, any goods or wares ; to post or display signs, placards, flags, or advertising devices ; to solicit subscriptions or contributions ; to play games of chance, or have possession of instruments of gambling ; to make orations, harangues or loud outcries ; to enter into political canvassing of any kind ; to utter profane, threatening, abusive, or indecent language, or to do any obscene or indecent act ; to bathe or fish ; to solicit the acquaintance of, or follow, or otherwise annoy other visitors.

4. To allow cattle, horses, or other animals, to pass over or stray upon the Park lands ; provided that this shall not apply to

those used for pleasure travel when on the ways or places provided and open for the purpose, or to dogs when closely led by a cord or chain not more than six feet long.

5. To drive any wagon, cart, dray, truck or other vehicle for carrying merchandise or other articles, or any hearse or funeral procession.

6. To move in military or civic parades, drills or processions.

7. To play ball or other games or sports, except on grounds provided therefor.

8. To engage in conversation with men at work, or to obstruct, hinder, or embarrass their movements.

9. To refuse to obey the orders or requests of either of the Commissioners, or of the Park Police, or other agents of the Commissioners, and to refuse to assist them when required.

Any person wilfully doing either of the things above forbidden shall be punished by fine not exceeding twenty dollars.

Voted, That compliance with the foregoing regulations is a condition of the use of these premises.

Voted, That notices in the following form be posted on the Public Parks in addition to the foregoing ordinances and vote.

Pending operations for forming a Public Park on this property, it is open to be used by all persons, in an orderly way, but with due regard to the Ordinances and Regulations hereinafter recited.

All persons entering upon the Park property are hereby warned to avoid newly prepared ground and localities where works are in progress, and to promptly regard all warnings and directions of officers or other agents of the Commissioners.

CITY CHARTER AMENDMENT.**COMMONWEALTH OF MASSACHUSETTS.**

[CHAP. 266.]

*In the Year One Thousand Eight Hundred and Eighty-five.***AN ACT TO AMEND THE CHARTER OF THE CITY OF BOSTON.***Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The mayor of the city of Boston shall appoint, subject to confirmation by the board of aldermen, all officers and boards now elected by the city council or board of aldermen, or appointed by him subject to confirmation, and all whose offices may hereafter be established by the city council or board of aldermen, for such terms of service respectively as are or may be fixed by law or ordinance; and he may remove any of said officers or members of such boards for such cause as he shall deem sufficient and shall assign in his order for removal. No appointment made by the mayor shall be acted upon by the board of aldermen until the expiration of one week after such appointment is transmitted to said board.

SECT. 2. The foregoing section shall not apply to the city messenger, clerk of committees of the city council, or such other clerks and attendants as may be employed by the city council, or either branch thereof, or any subordinate officers in the several departments. The assistant assessors of taxes shall be appointed by the assessors of taxes, subject to confirmation by the mayor, and may be removed by the assessors for such cause as they shall deem sufficient and shall assign in their order for removal, and the city clerk shall be chosen by the city council by concurrent vote.

SECT. 3. No member of the city council of said city shall, during the term for which he is elected, be appointed to or hold

any office included under the provisions of either of the preceding sections.

SECT. 4. Every officer included under the provisions of either section one or two shall, unless sooner removed, continue after the expiration of his term of service to hold his office until his successor is appointed or elected and duly qualified.

SECT. 5. All officers and boards included under the provisions of section one shall appoint their respective subordinates for such terms of service respectively as are or may be fixed by law or ordinance. The said officers and boards may remove such subordinates for such cause as they may deem sufficient and shall assign in their order for removal.

SECT. 6. The executive powers of said city, and all the executive powers now vested in the board of aldermen, as such, as surveyors of highways, county commissioners, or otherwise, shall be and hereby are vested in the mayor, to be exercised through the several officers and boards of the city in their respective departments, under his general supervision and control. Such officers and boards shall, in their respective departments, make all necessary contracts for the employment of labor, the supply of materials, and the construction, alteration, and repair of all public works and buildings, and have the entire care, custody, and management of all public works, institutions, buildings, and other property, and the direction and control of all the executive and administrative business of said city. They shall be at all times accountable for the proper discharge of their duties to the mayor as the chief executive officer, whose duty it shall be to secure the honest, efficient, and economical conduct of the entire executive and administrative business of the city, and the harmonious and concerted action of the different departments. Every contract made as aforesaid in which the amount involved exceeds two thousand dollars shall require the approval of the mayor before going into effect; and no expenditure shall be made nor liability incurred for any purpose beyond the appropriation duly made therefor.

SECT. 7. The mayor shall, once a month or oftener, call together the heads of departments for consultation and advice upon

the affairs of the city ; and at such meetings and at all times they shall furnish such information as to matters under their control as the mayor may request.

SECT. 8. The heads of departments, and all other officers and boards having authority to expend money, shall annually furnish an estimate to the mayor of the money required for their respective departments and offices during the next financial year. The mayor shall examine such estimates, and submit the same with his recommendations thereon to the city council.

SECT. 9. When an ordinance, order, resolution, or vote of the city council, or of either branch thereof, involving the appropriation or expenditure of money, or the raising of a tax, and including separate items or sums, is presented to the mayor of the city for his approval he may approve some of the items or sums and disapprove others ; and in case of such disapproval the portion of the ordinance, order, resolution, or vote so approved shall be in force, in like manner as if the items or sums disapproved had never been a part thereof ; and the mayor shall return a statement of the items or sums disapproved, with his objections in writing, to that branch of the city council in which the ordinance, order, resolution, or vote originated. The items or sums so disapproved shall not be in force unless passed in the manner provided in section forty-seven of chapter four hundred and forty-eight of the Acts of the year eighteen hundred and fifty-four.

SECT. 10. All orders, resolutions, or votes of the board of aldermen of said city, which involve the exercise of any of the powers conferred by law upon the mayor and aldermen, or the board of aldermen as a separate board, and all orders, resolutions, or votes of the school committee of said city, which involve the expenditure of money, shall be presented to the mayor for his approval, and thereupon the same proceedings shall be had by the mayor and the board of aldermen, or the mayor and the school committee, as are provided in section forty-seven of chapter four hundred and forty-eight of the acts of the year eighteen hundred and fifty-four, or in section nine of this act, to be had by the

mayor and a single branch of the city council ; but nothing in this section contained shall affect the powers or duties of said board in relation to votes cast at elections. The mayor shall not be a member, nor preside at any of the meetings, nor appoint any of the committees of either the board of aldermen or of the school committee.

SECT. 11. The annual salary of the mayor of said city shall be fixed by the city council by concurrent vote at a sum not less than five thousand dollars, and he shall receive for his services no other compensation or emolument whatever.

SECT. 12. Neither the city council, nor either branch thereof, nor any member or committee thereof, or of either branch thereof, nor the board of aldermen acting in any capacity in which said board may act separately under special powers conferred upon it, nor any member or committee of said board acting in any such capacity, shall directly or indirectly take part in the employment of labor, the making of contracts, the purchase of materials or supplies, the construction, alteration, or repair of any public works, buildings, or other property, or the care, custody, and management of the same, or in the conduct of any of the executive or administrative business of the city, or in the expenditure of public money, except such as may be necessary for the contingent and incidental expenses of the city council, or of either branch thereof, nor, except as is otherwise provided in sections one and two, in the appointment or removal of any officers or subordinates for whose appointment and removal provision is hereinbefore made ; but nothing in this section contained shall affect the powers or duties of the board of aldermen in relation to State aid to disabled soldiers and sailors, and to the families of those killed in the civil war.

SECT. 13. All ordinances, rules, orders, resolutions, and votes of the city council of said city and of either branch thereof, and of the board of aldermen acting in a special capacity as a separate board, are annulled so far as they are inconsistent with the provisions of this act ; and nothing herein shall affect the enforcement of the provisions of chapter three hundred and twenty of the

acts of the year eighteen hundred and eighty-four, being an act to improve the civil service of the Commonwealth and the cities thereof, or of the rules made by the commissioners appointed thereunder; and none of the provisions of this act, except those relating to the power of removal, shall affect the tenure of office of any person now holding any office or position in said city.

[Approved May 27, 1885.]

**STATUTES OF THE COMMONWEALTH AND ORDERS
OF THE CITY OF BOSTON CONCERNING PUBLIC
PARKS AND RELATED MATTERS.**

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 312.]

In the Year One Thousand Eight Hundred and Eighty-seven.

**AN ACT TO AUTHORIZE A LOAN FOR PAYMENT FOR LANDS
HERETOFORE ACQUIRED FOR PUBLIC PARKS IN OR NEAR
THE CITY OF BOSTON.**

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows: —*

SECTION 1. For the purpose of paying for the lands heretofore acquired by the City of Boston for public parks, the City Council of said city may, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, authorize its treasurer to issue, from time to time, to the amount of four hundred thousand dollars, negotiable bonds or certificates of indebtedness, payable in not exceeding fifty years from their date, and bearing interest at a rate not exceeding four per centum per annum, to be denominated on the face thereof Public Park Loan.

SECT. 2. Said treasurer shall sell said bonds and certificates, or any part thereof, from time to time, and retain the proceeds thereof in the treasury of said city, and pay therefrom the expenses incurred for the purpose aforesaid.

SECT. 3. The debt and loans authorized by this act shall not be included within the limit fixed by section two of chapter one hundred and seventy-eight of the Acts of the year eighteen hundred and eighty-five.

SECT. 4. This act shall take effect upon its passage.

[Approved May 26, 1887.]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 427.]

*In the Year One Thousand Eight Hundred and Eighty-seven.***AN ACT TO ENLARGE THE AREA FOR THE PROPOSED MARINE PARK OF THE CITY OF BOSTON BETWEEN SOUTH BOSTON AND CASTLE ISLAND.***Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—*

SECTION 1. Chapter three hundred and sixty of the Acts of the year eighteen hundred and eighty-five is hereby so amended, that the Board of Park Commissioners of the City of Boston, subject to the provisions of chapter nineteen of the Public Statutes, excepting so much of section sixteen of said chapter nineteen as requires the payment into the treasury of compensation for the rights and privileges hereby granted in land of the Commonwealth, may make such excavation and filling, and erect and maintain such structures, in and over the area of tide-water at or near Dorchester Point in South Boston, which lies south of a line drawn parallel to and three hundred feet distant northerly from the northerly line of East First street extended easterly to Castle Island, and east of the westerly line to Q street extended northerly to an intersection with said parallel line, and southerly into Old Harbor, as the said Board may deem necessary or desirable for the purposes of a public park in accordance with the provisions of chapter one hundred and eighty-five of the Acts of the year eighteen hundred and seventy-five.

SECT. 2. All lands of the Commonwealth which are occupied or enclosed under the provisions of this act shall be appropriated to and used solely for the purposes of a public park.

SECT. 3. This act shall take effect upon its passage.

[Approved June 16, 1887.]

CITY OF BOSTON,
IN BOARD OF ALDERMEN, Jan. 31, 1887.

Ordered, That His Honor the Mayor be requested to petition the General Court for the passage of an act authorizing the City of Boston to borrow money to be expended in payment for lands purchased or taken by the Board of Park Commissioners, under authority of chapter 185 of the Acts of 1875; the amount of such loan to be exclusive of the limit of indebtedness prescribed by chapter 178 of the Acts of 1885.

Passed in Common Council, Jan. 27. Came up for concurrence. Concurred.

Approved by the Mayor, Feb. 2, 1887.

CITY OF BOSTON,
IN COMMON COUNCIL, Feb. 3, 1887.

Ordered, That the City Treasurer be authorized to negotiate the "Public Park Construction Loan," authorized by an order of the City Council, approved Jan. 4, 1887, from time to time, in such manner as he shall deem to be for the best interests of the city, subject to the approval of His Honor the Mayor, and to issue therefor negotiable bonds or certificates of indebtedness, at not less than their par value, payable in not less than thirty years, nor more than fifty years, at a rate not exceeding three and one-half per cent. per annum. So much of said order of the City Council, approved Jan. 4, 1887, as is inconsistent with this order, is hereby rescinded.

Passed: Yeas, 65; nays, none. Sent up for concurrence. In Board of Aldermen, Feb. 7, concurred: Yeas, 12.

Approved by the Mayor, Feb. 10, 1887.

CITY OF BOSTON,
IN BOARD OF ALDERMEN, May 31, 1887.

Ordered, That the City Treasurer be authorized to borrow the sum of four hundred thousand dollars, the certificate of indebtedness to be denominated "Public Park Loan," and to be coupon bonds of the amount of one thousand dollars each, payable in gold, in thirty years, bearing interest at the rate of three and one-half per cent. per annum, payable semi-annually.

Passed: Yeas, 10; nays, none. Sent down for concurrence. June 2, came up concurred: Yeas, 58; nays, none.

Approved by the Mayor, June 4, 1887.

CITY OF BOSTON,
IN BOARD OF ALDERMEN, Nov. 14, 1887.

Ordered, That in the settlements of the suits pending between the City of Boston and the Boston & Roxbury Mill Corporation, on account of the taking of a parcel of its land for a park at the Back Bay, and the assessment of betterments for the location and laying out of said park, the Board of Park Commissioners be hereby authorized to take, by purchase or otherwise, and include in said park, two additional strips of land, fifty feet in width, running from Beacon Street to Charles River, adjoining and on either side of said parcel of land, and pay for the same with said betterments, or a part thereof; and the City Solicitor is hereby authorized to allow judgment to be entered accordingly.

Ordered, That His Honor the Mayor be hereby authorized to release to the Boston & Roxbury Mill Corporation any rights that the city may have to make any additional sluice-ways through lands bordering on the mill-dam, now or formerly owned by said corporation, except through lands now or hereafter owned by the City of Boston.

Passed. Sent down for concurrence. In Common Council, Nov. 17, 1887, concurred.

Approved by the Mayor, Nov. 21, 1887.

CITY OF BOSTON,
IN BOARD OF ALDERMEN, Dec. 27, 1887.

Ordered, That the City Treasurer in negotiating the public park construction loans, authorized by the orders of the City Council, of Jan. 4, 1887, and Feb. 10, 1887, allow a rate of interest of four per cent. per annum, payable semi-annually.

Passed: Yeas, 9; nays, 1. Sent down for concurrence. In Common Council, Dec. 29, 1887, concurred: Yeas, 55; nays, none.

Approved by the Mayor, Dec. 31, 1887.

BOSTON BAY AND HARBOR.

Boston Bay is the western end of Massachusetts Bay, and may be said to be included between Marblehead Neck and Strawberry Point. Between these two points the distance is about fifteen nautical miles, and the bay makes into the land about eleven miles. It is studded with islands and full of shoals and ledges.

Two subdivisions of the bay, in its north-western part, are known as Nahant Bay and Broad Sound, which are separated from each other by the peninsula of Nahant, and its western part is Boston Harbor. The rest of the bay forms the approaches to Boston Harbor and the smaller harbors in the vicinity.

Boston Harbor, as generally known, includes Dorchester, Quincy, and Hingham Bays, and the subordinate ports of Chelsea, Cambridge, Milton, Quincy, Weymouth, and Hingham. Its greatest length is about ten miles, and its width five miles.

The entrance to Boston Harbor is between Deer Island on the north, and Point Allerton on the south, between which two points it is three miles and three-quarters wide. From the entrance to the Main Ship Channel, the distance in a straight line to the city of Boston is about seven miles.

The space between Point Allerton and Deer Island is full of islands, through and among which lead the several channels into Boston Harbor. Of these there are six in common use, viz.: The Broad Sound Channels, called respectively the North and South Channels; Hypocrite Channel; Black Rock Channel; Main Ship Channel, and Back or Western Way, — the Hypocrite Channel and the Back Way being used chiefly by vessels bound out.

DESCRIPTION OF APPROACHES TO BOSTON HARBOR, AS SEEN FROM THE NORTHWARD.

From Flying Point, the south-western extremity of Marblehead Neck, to Phillips' Point, the north-eastern point of entrance to Nahant Bay, the direction is WSW., and the distance two miles and three-eighths; but the shore-line between these two points curves away to the northward and around to the westward, thus forming a wide cove or bay. Marblehead Beach extends from Marblehead Neck, about W. $\frac{1}{2}$ N., for five-eighths of a mile.

It is a narrow sand-beach, which separates Marblehead Harbor from the sea, and the town is visible over it. At the western end of Marblehead Beach begin the hills, which come abruptly down to the water's edge, and are from fifty to one hundred feet high. They are bare of all trees except fruit-trees, and are cleared and settled (partly by summer hotels and cot-

tages). The high land continues in a WSW. direction for a mile, to the eastern end of Phillips' Beach which extends to Phillips' Point. This beach has a general course of SW. for about seven-eighths of a mile, and for half its length stretches at the foot of a low cliff, about twenty feet high. For the rest of the distance to Phillips' Point, the land behind the beach is quite low and flat; but high wooded lands are visible in the distance.

Phillips' Point is a high rocky point, the eastern half of which is from fifty to sixty feet high, mostly cleared and cultivated, and presenting a somewhat precipitous face. The western half is about eighty feet high, and is thickly wooded. On the south-western face are many houses, some of which are seaside hotels.

NAHANT BAY.

Phillips' Point is the north-eastern point of entrance to Nahant Bay, which forms one of the smaller subdivisions of Boston Bay, and is nearly circular in form. It is contained between Phillips' Point on the north-east, and the peninsula of Nahant on the south-west. Between these two points the bay is two miles and a half wide, and about two miles long to Lynn Beach, which separates it from Lynn Harbor. The village of Swampscott is situated on the northern shore of this bay, three-quarters of a mile W. from Phillips' Point, and is a great summer resort. The eastern part of the town of Lynn occupies a portion of its north-western shores.

Fishing Point, the first headland on the northern shore to the westward of Phillips' Point, is a low, but prominent, rocky point, half a mile WNW. from Phillips' Point. It is cleared and settled, being occupied by part of the village of Swampscott. The village itself presents quite a picturesque appearance, being situated at the foot of steep wooded hills, which rise to a height of from one hundred to one hundred and fifty feet above sea-level. The rocky point upon which the main part of the settlement is built, is three-eighths of a mile above Fishing Point, and is called Blaney's Point or Blaney's Rock.

To the westward of Blaney's Rock will be seen the town of Lynn, with a long low beach, called King's Beach, extending in front of it. This beach is half a mile long, and is terminated by a low, bluff, rocky point, called Red Rock. This point is entirely bare of trees, and presents a somewhat precipitous face, — the effect of the washing of the sea.

A quarter of a mile to the westward of Red Rock begins Lynn Beach, a narrow strip of sand, separating Nahant Bay from the harbor of Lynn. It extends in a S. by W. direction for a mile and a quarter to a high bluff, rocky head, called Little Nahant. The surface of this headland (which would be an island but for the narrow strip of beach connecting it with the main) is covered with grass, and has one or two trees upon it. Its eastern face is bold

and steep, and is known as East Point, or, to distinguish it from the point of the same name to the south-eastward of it, Little Nahant East Point.

On the south Little Nahant is connected with Nahant by a strip of beach, nearly half a mile long, called Little Nahant Beach.

Nahant lies nearly E. and W., and is very irregular in shape. It is a high rocky peninsula, with a precipitous face to the eastward, and a mile and a half long. It is occupied by a settlement which is mainly composed of summer cottages. Its eastern extremity is called East Point, and is a bluff headland (called Nahant Head). The roads over the peninsula are planted with trees, which in summer present a beautiful appearance when seen from the southward.

Nahant is a great summer resort, and steamers ply regularly between it and Boston during the season. The landings are on the southern side, in the large cove formed by the curve of the southern shore, which is sometimes called Nahant Harbor.

Seven-eighths of a mile NNE. from East Point is a bold rocky islet, sixty feet high, called Egg Rock. It is irregular in shape, lies nearly E. and W., is an eighth of a mile long, and on its summit is built the light-house, which is a guide to Swampscott Harbor. It rises from the keeper's dwelling (a square white cottage, twenty-five feet high), and shows a fixed red light, of the fifth order of Fresnel, from a height of eighty-seven feet above sea-level, visible twelve miles.

BROAD SOUND.

The entrance to Broad Sound is between Nahant and the bare rocky islets, called The Graves, which lie in a N. by E. and S. by W. direction outside of Green Island, and are very dangerous bare rocks, united into one ledge at low water, forming a group six hundred yards long.

Broad Sound lies NW. and SE., is about five miles wide between Deer Island and Nahant, and about six miles long. At the head of the Sound is Lynn Harbor, the entrance to which is contained between Bass Point (on Nahant) and Chelsea Beach. On the east Broad Sound is separated from Nahant Bay by Lynn Beach, Little Nahant, and Nahant; and its northern shores are occupied by the city of Lynn, one of the great manufacturing towns of New England. On the west the boundaries are the famous Chelsea Beach (sometimes called Revere Beach), which, beginning at Pines Point, three-quarters of a mile to the south-westward of Lynn, runs in a SW. direction for nearly three miles, and is not quite a hundred yards wide. The land behind it is salt-meadow, into which the firm ground extends like spurs; and here and there over the surface of this marsh appear groves of oak and pine trees, which will distinguish this part of the Sound from other parts of the

bay, when viewed from seaward. (Many summer hotels and cottages now occupy the shore.)

At Pines Point, Chelsea Beach is a hundred yards wide; but back of the shore is a meadow, and behind that a grove of pine-trees, which give the name to the point. This point is on the southern side of the entrance to Chelsea Creek and Saugus River, both of which are shallow estuaries.

The settlement called Centre Village (now Revere) occupies the high land back of the southern end of Chelsea Beach.

Deer Island, which separates the entrance to Broad Sound from Boston Harbor, lies NNW. and SSE., is nearly a mile long, and a third of a mile wide, at its widest part. To a vessel approaching from the north-eastward it will appear as a long bare island, with a gently-sloping green hill having a flag-staff on its summit towards its eastern end; and this hill appears joined to another to the westward, which has a precipitous descent to seaward. The House of Industry, with its high cupola, appears on the western end of the island. On the eastern side of the hill, in the centre of the island, is a life-boat station, established by the Massachusetts Humane Society. Both the northern and southern ends of Deer Island are low, and covered with grass only; and there are no trees except those planted for ornamental purposes. On the north a channel, eighty yards wide, separates Deer Island from a low, sandy point of the mainland, called Point Shirley. This passage is known as Shirley Gut, and is sometimes used by the steamers plying between Boston and Nahant.

Point Shirley is the south-western extremity of a very long and narrow peninsula, mostly sand-beach, which extends in a S. $\frac{1}{2}$ W. direction from the mainland to the southward of Chelsea Beach. The point itself forms a sort of flat head to this peninsula, lies NW. and SE., and is half a mile long and about a fifth of a mile wide. Taft's Hotel is situated on this point.

Winthrop's Head is a precipitous headland, a hundred feet high, and bare of trees, situated half a mile NNE. from Point Shirley, and on the western side of the entrance to Broad Sound. The road from Point Shirley to Winthrop leads around the western side of this hill. To the northward of this head runs a sand-beach an eighth of a mile wide and half a mile long to the mainland, about a mile to the southward of Grover's Cliff which is the most prominent point between Point Allerton and Nahant Head, and lies one and a fifth miles N. by E. from Winthrop's Head. It is backed entirely by marsh, but the point itself is a precipitous headland, eighty feet high, and bare of trees.

From Grover's Cliff the shore-line runs about N. $\frac{1}{2}$ W., for three-quarters of a mile, to the southern extremity of Chelsea Beach; and midway, between this point and Grover's Cliff, is a hill a hundred feet high. The whole shore is bare of trees, but the hills are usually grassy, and in many places are groups of summer cottages. The summit of the hill on the western end of

Breed's Island appears (when viewed from the eastward) over the sand-beach and marsh which separate Grover's Cliff from the hills to the northward. The summit of this island is a hundred and fifty feet above the sea, and there are some few scattered trees, near the base of the hill, on the eastern side; but it is, for the most part, treeless and under cultivation.

To the northward of Breed's Island will appear Powder-horn Mountain, a hundred and eighty feet high, and the houses in the village of Winnissimmet (now Chelsea) will show over the low shore between the two hills.

LYNN HARBOR.

On the northern side of Broad Sound are situated the harbor and city of Lynn. The land is low and marshy from the northern bank of Saugus River nearly across the head of the harbor, and it is also much cut up by coves and slues penetrating the marshes in every direction. In the north-eastern corner of the head of the harbor the line of marsh is narrow, and the wharves of the town extend over this marsh to the water's edge.

Lynn is chiefly celebrated for its shoe factories. The railroads have, however, all of the transportation, and the harbor is very little used.

The entrance to Lynn Harbor is between Chelsea Beach on the west and Bass Point, the western point of Nahant, on the east. It is two miles wide, but is so full of rocks and shoals as to leave only very narrow and shallow channels of approach, available only for light-draught vessels. The eastern shores are formed by Lynn Beach, the peninsula of Little Nahant, and Nahant.

Bass Point, the south-western point of Nahant, is quite low, but high land is seen behind it. From this point the shore-line runs N. $\frac{1}{2}$ E. for a third of a mile to the West Cliffs, which, as their name implies, show an abrupt and precipitous face to the westward and are bare of trees.

A quarter of a mile N. $\frac{1}{2}$ E. from West Cliffs is the north-western end of Nahant, called Black Rock Point. The shore is low at this point, with high land behind it to the eastward. Six hundred yards (a third of a mile) NE. $\frac{1}{4}$ N. from this point begins Little Nahant Beach. Little Nahant appears to the northward of the beach, and is half a mile above Black Rock Point; and presents, when viewed from the southward and westward, a regular and gradual slope from the water's edge to a height of from eighty to ninety feet. The road to Lynn winds along the beach at its foot. Lynn Beach forms the rest of the eastern shore of the harbor, extending from Little Nahant to the mainland, a distance of a mile and a quarter.

The city of Lynn occupies the northern shore of the harbor. On the south and south-west the town is bounded by extensive salt-marshes, which occupy the shore for distances varying from a quarter of a mile to a mile and a quarter back from the shore-line; but the settlements have gradually en-

croached upon this extensive tract. On the south-west these marshes extend to Saugus River, which empties into Lynn Harbor between Tree Point (sometimes called Sow Point) on the north and Pines Point on the south. The entrance to this river is a quarter of a mile wide, but the channel is very narrow, and the best water is close under Pines Point. Four feet at mean low water may be carried up to the bridge of the Eastern Railroad.

Bayley's Hill, which is a prominent landmark for Nahant Harbor, is a bluff steep head, about sixty or seventy feet high, situated on the southern side of Nahant, five hundred yards E. from Bass Point, and is bare of trees. It lies on the western side of Nahant Harbor, so called.

THE BROAD SOUND CHANNELS.

Besides Shirley Gut there are two channels leading into Boston Harbor from Broad Sound. The westernmost of these, which passes within less than half a mile of Deer Island, is called the North Channel. It is shoal and full of dangers, and is not fit for strangers. The eastern channel is called the South Channel, and is almost universally used by coasters of all sizes coming into Boston from the northward and north-eastward.

The North Channel leads across Great and Little Faun bars, and is never used except by vessels of light draught. Its entrance is just to the westward of the entrance to the South Channel, and its course about SW. by W. $\frac{1}{4}$ W. Vessels of lighter draught than ten feet, however, often bring Long Island Light-house to bear SW. by W. and run for it, which carries them safely across. Thirteen feet at mean low water can be carried across the two bars, but the channel is narrow and unsafe for strangers unless of very light draught. A shoal with ten feet lies to the eastward of Little Faun Bar buoy, and about two hundred and fifty yards from it.

The South Channel, which is easy of access and has plenty of water at half-flood for vessels of the largest draught, comes into Broad Sound to the westward of Green Island. It is short and straight, its range is perfect, and strangers may resort to it with safety. The course is SW. by W. $\frac{1}{4}$ W. for Nix's Mate Beacon until past Ram's Head buoy. Then the channel turns to the westward and runs between Deer Island and Long Island into President's Roads.

Vessels of light draught often steer SW. by W. for Long Island Light-house, crossing the shoals between the North and South channels. When coming from the vicinity of Cape Ann and intending to enter by the South Channel, the course is SW. by W. for Long Island Light-house until Egg Rock Light-house bears N. by E. $\frac{1}{4}$ E., then steer to the southward until Nix's Mate Beacon is on with the middle of the northern and highest part of the Blue Hills, which is the range for the channel. From this position the entrance is easily recognized by a stranger, on referring to the view.

The channel will appear open between Long Island Head and a long high island with a gently-sloping green surface, bare of trees, but having a flag-staff on its summit near its eastern end. Long Island Head is easily recognized by its bold, bare, precipitous face, on which the light-house and keeper's dwelling are seen. The other island with the gently-sloping hill is Deer Island. The hill on Deer Island appears to be joined to another at its northern end, which has an abrupt descent, forming a precipitous face. Over this high bluff will appear the public buildings. Both hills are on Deer Island, — the lowland connecting them not being visible at this distance.

To the northward of Deer Island will be seen the open entrance to Shirley Gut; and the low sandy point, with houses upon it, which lies on the northern side of the opening, is Point Shirley. If the day be clear, Fort Winthrop on Governor's Island may be seen over the northern end of the point, appearing as a square earth-work on a high smooth hill. To the northward of Point Shirley the high bare cliff which rises from the water, appearing like an island, is Winthrop's Head. It is joined to Point Shirley by a strip of beach not visible at this distance. The city of Boston, with the dome of the State House in the centre, will show to the northward of this head.

If the day be clear there may be seen in the distance, towering above the low hills that are visible to the northward of the city, a slim shaft or tower, looking like a tall gray chimney. This is Bunker-Hill Monument. Some distance to the northward will appear a high bare cliff apparently rising from the water. This is Grover's Cliff, at the southern end of Chelsea Beach. Beyond this the land runs away towards Lynn, and then around to Nahant Head.

To the southward of Deer Island will be seen Long Island; then Lovell's Island in range with Gallup's Island; then the white walls of Fort Warren in the distance; then Green Island and Little Calf Island at the entrance to Hypocrite Channel; then the high, bare, precipitous head of the Great Brewster, presenting a very singular appearance; then Middle Brewster, showing as a bare rocky island, and behind it Nantasket Hill, with a couple of steeples rising above it; and Boston Light-house will be in range with the eastern end of the Middle Brewster.

The channel being open from the above bearing, the course for Nix's Mate will lead safely in.

HYPOCRITE CHANNEL.

This is the first channel to the southward of the Broad Sound Channels. Its entrance lies between Green Island on the north and Little Calf Island on the south, and is three-eighths of a mile wide; but the channel itself is but three hundred yards wide between the curves of eighteen feet at low water, and is not recommended for strangers. Vessels entering by this channel pass to the northward of The Brewsters.

From Green Island the channel continues to the westward about a mile and a half to what is called Ram's Head, where it joins the South Channel of Broad Sound, and then nearly a mile farther to the westward towards Long Island Head, joining the Main Ship Channel off Nix's Mate. There is not less than three and a half fathoms water throughout its entire length, but there are a good many sunken ledges, some of which are not buoyed.

A vessel coming from the eastward and intending to enter this channel should, when in thirteen and a half fathoms, bring Boston Light-house to bear W. by S. $\frac{1}{4}$ S., and Egg Rock Light-house NNW. The entrance will then bear nearly W., and will appear as follows:—

On the southern side of the entrance the nearest land will be the Outer Brewster, which will appear quite differently from its description as given in the approaches to the Main Ship Channel. It will look much smaller, as this view is end on, and the high bare cliff on the northern end of the Great Brewster will show just clear of it to the southward.

The low grassy island with its southern end on with the Outer Brewster is Calf Island. It is about thirty feet high at its northern end, appears somewhat undulating in outline, is bare of trees, and has only one or two houses upon it, which are close to the southern end, and are not seen unless the island is open to the northward of the Outer Brewster. This southern end is only ten or fifteen feet high.

Calf Island lies off the western end of Middle Brewster, from which its southern end is distant a little over three hundred yards, with a shoal passage between them unsafe for strangers. The island lies N. and S., and is a little over six hundred yards long. From the point of view above mentioned the northern end will bear W. $\frac{1}{4}$ S., distant three miles and an eighth.

To the northward of Calf Island, and bearing W., will appear a little island about the same height as Calf Island, and also bare of trees. This is Little Calf Island, lying on the southern side of the entrance to Hypocrite Channel, and about one hundred yards in diameter. From Calf Island it lies NE. by N., an eighth of a mile distant, and there is no passage between them.

To the northward of Little Calf Island (and the most northerly of the islands visible from this point of view) will appear a small island of moderate height, having an undulating surface and faced by whitish-looking rocks on its eastern side. This is Green Island. It lies on the northern side of the entrance to this channel, bears about W. $\frac{1}{2}$ N., and is in range with the high land in the middle of Deer Island, the high cliff on the north-eastern face of the latter appearing just to the northward of Green Island. It is bare of trees, lies nearly N. and S., and is an eighth of a mile long. From The Graves it bears WSW., one mile and a quarter, and from the eastern end of Outer Brewster NW. $\frac{1}{4}$ N., one mile distant.

From the southern extremity of Green Island extends a line of bare rocks in a SW. by W. direction, about three hundred and fifty yards — its southern end marking the northern side of the entrance to Hypocrite Channel.

Just clear of Green Island, to the northward, will appear the public buildings on Deer Island, and north of these the other large buildings on Point Shirley, with the city of Boston in the distance behind it. North of Point Shirley the high cliffs of Winthrop's Head and Grover's Cliff will appear. As the low land between these heads will not show at this distance they will look like islands.

On entering Hypocrite Channel the southern point of Deer Island will appear ahead as a long, gently-sloping green hill, having a flag-staff on its summit, and the square red pyramidal beacon to the southward of it is Deer Island Point Beacon.* This beacon is on Deer Island Point, and vessels must pass to the southward of it.

A little to the southward of Deer Island Point Beacon will be seen in the distance North Spectacle Island, showing as a smoothly-outlined hillock with precipitous faces, and next to this the high cliff of Long Island Head, with the light-house and keeper's dwelling on the summit. Nearly in range with the Almshouse on Long Island, and a little to the southward of the Head, Nix's Mate Beacon may be seen; and the northern end of Lovell's Island will mark the southern side of the passage.

This is the appearance presented by the South Channel when viewed from the entrance to Hypocrite Channel, between Green and Little Calf islands.

DESCRIPTION OF APPROACHES TO BOSTON HARBOR AS SEEN FROM THE SOUTHWARD.

A mariner coming from the vicinity of Cape Cod, and bound to Boston, will notice, as a most conspicuous object on approaching the shore, a tall gray light-tower, apparently standing in the water at some distance from the land. This is Minot's Ledge Light-house, built on the outermost of the Cohasset Rocks, on what is called the Outer Minot, a ledge bare at low water. The tower is of granite, with a bronze lantern on top. It is one hundred feet high, and shows a fixed white light, of the second order of Fresnel, from a height of ninety-two feet above the sea, visible sixteen miles.

From Minot's Ledge to the shore lie the Cohasset Rocks, a great number of sunken and bare ledges, through and among which winds what is called the Gangway passage. Strangers must never attempt to pass in-shore of the light-house. Many of the ledges are not buoyed, and among those that are so marked a stranger would certainly get confused and run ashore.

Strawberry Point, the most easterly point of Boston Bay, lies one mile SW. by S. from Minot's Ledge Light-house, and marks the southern limits of the bay. It will appear, on approaching Minot's Ledge, as a low grassy point, with groups of houses here and there upon its surface, and among them a large hotel. Partly wooded hills will be seen behind the point and to the eastward of it. The deep cove which opens on the western side of the

point, on passing to the westward of the light-house, is Cohasset Harbor. The southern shores of this harbor are low, but there is high land back of them, which, showing over the low land, gives the appearance of a hilly country. The western shores are hilly and partly wooded, and the town of Cohasset is situated at the foot of these hills.

Passing to the westward, the country will be found quite hilly and wooded. Sand hillocks are also seen here and there near the beaches. The shoreline is much cut up by coves and indentations, and small islets lie at intervals along the shore.

Half a mile to the north-eastward of Cohasset Entrance is a strip of sand-beach about three hundred and twenty-five yards long, which occupies what was formerly the entrance to a large cove of irregular shape, now known as Old Harbor. The beach having formed across the entrance makes of the former cove a pond.

A little over a mile and a quarter WNW. from Cohasset Entrance is an oblong hill fifty feet high, bare of trees and covered with grass, called Green Hill. Two bare rocky islets, called the Black Rocks, lie NE. by E. from this hill from a quarter to half a mile off. There is no passage between them and the hill. A life-boat station, established under the auspices of the Massachusetts Humane Society, lies ESE. from Green Hill, distant half a mile.

From Green Hill to the westward, a low shore is passed, bounded by a narrow strip of sand-beach, behind which extend large salt-meadows. The higher and wooded lands lie still farther back, in no place approaching the beach nearer than three-eighths of a mile. This low shore extends from the base of Green Hill, a little over half a mile in a NW. by W. direction, to the foot of a group of bare hills, called the Rockland Hills, separating the low lands between them and Green Hill from the great Nantasket Beach, which begins at the foot of their western slopes and extends in an unbroken line two miles and three-quarters NNW. to the base of Point Allerton.

The Rockland Hills are from eighty to ninety feet high and bare of trees. Two large summer hotels, the Atlantic and the Rockland houses, are built upon their summits, and serve to distinguish them.

When abreast of these hills the beacon on Harding's Ledge will be plainly discernible to the northward, and about a mile off. It is an iron spindle, painted black, and carrying a day mark consisting of a ring or wheel four feet in diameter, set horizontally, with twelve wooden pendants attached to the rim. The bell-buoy will appear a little to the eastward of the spindle.

Nantasket Beach, as before mentioned, extends in a NNW. direction to Point Allerton. It separates a large shallow bay, called Hingham Bay, from the ocean, and is at no point more than half a mile wide. Several grassy hills rise at intervals just back of the beach, the most prominent of which are Sagamore Head, White Head, and Strawberry Hill.

Sagamore Head is grassy, eighty feet high, and has several houses upon

it. Four hundred yards to the northward of it rises White Head, a bare hillock, only forty-five feet high. Three hundred yards N. of White Head there is a hut of refuge, established by the Massachusetts Humane Society. Nearly a mile farther to the northward rises a smooth green hill, bare of trees, and showing a single house upon its summit. This is Strawberry Hill, and is one hundred feet high. At its base is another life-boat station, established by the same society.

The high bare cliff seen to the northward of Strawberry Hill is Point Allerton, the southern point of entrance to the Main Ship Channel. The land, rising abruptly from the water to a peak, then descending to a small low valley, and then rising again to a height of one hundred and fifteen feet, forms a head of very peculiar appearance. The southern part of the point is a round hill, bare of everything except grass, and with perpendicular faces. There is a life-boat station in the valley between the northern point and the high cliff to the southward, and a hut of refuge on the beach, three hundred and twenty-five yards from the base of the hill. (Many summer cottages are now built along the shore and on the hills.)

On passing Harding's Ledge Beacon, Boston Light-house will be seen directly ahead and on with the southern end of a remarkable looking island, which looks like Point Allerton, except that the high, round hill is at its northern end, and the sharp peak, like the pommel of a saddle, at its southern end; but the perpendicular cliffs and the grassy surface are exactly similar to those on Point Allerton. This is the Great Brewster. (See View of Main Entrance.) So exactly similar has been the action of the sea on this island and Point Allerton that they appear as if they had formerly been joined together and afterwards separated by some great convulsion of nature.

To the eastward of the Great Brewster will appear two bare rocky islands, lying nearly E. and W. of each other. These are the Middle and Outer Brewsters. They are merely masses of black rock from fifty to sixty feet high, lying on the northern side of the Main Entrance.

The City of Boston, with the dome of the State House rising above the rest of the houses, will be seen in the distance to the westward of the light-house. The two bare islands just to the left are Lovell's Island and Gallup's Island; and Fort Warren is plainly visible just to the northward of Point Allerton.

MAIN SHIP CHANNEL.

The entrance to this channel is between Light-house Island on the north, and Point Allerton on the south, and is a mile and an eighth wide; which width it holds for a little over a mile and a quarter, when it contracts at the Narrows to a little more than a quarter of a mile. The course is first about W. for a mile and an eighth; then NW. through the Narrows, between Narrows Light-house (on Spit Bar) and George's Island (on which Fort Warren

is built); then NW. by N. between Lovell's Island and Gallup's Island for three-quarters of a mile, until up with Nix's Mate Beacon; then NW. towards Deer Island, joining the Broad Sound Channels; then W. $\frac{1}{2}$ N. through President's Roads, passing to the southward of Deer Island and to the northward of Long Island and the Spectacle Islands; and then between NW. $\frac{1}{2}$ N. and NW. by W. up to the city, passing between Governor's Island on the north and Castle Island on the south. The whole distance by this channel from the entrance to the anchorage off the city is seven and a half nautical miles.

On approaching Boston Main Entrance from the northward or eastward, the first prominent object met with will be the Outer Brewster, a bare rocky island, the easternmost of the group lying on the northern side of the Main Ship Channel.

The Outer Brewster is a mass of black rock, presenting a very rugged appearance, and destitute of all vegetation. It lies E. and W., is about a third of a mile long, sixty feet high at its highest part, and its shores are bold-to; but there are outlying reefs to the eastward of it. There is a solitary house on the northern side.

About three hundred yards to the westward of Outer Brewster lies Middle Brewster, separated from the former by a narrow and dangerous passage called Flying Place, which is full of shoals and unfit for strangers. Middle Brewster lies E. and W., is a third of a mile long and about fifty feet high. It is a mass of bare rock, destitute of vegetation, but presenting a somewhat less rugged appearance than that of the Outer Brewster. A spit or reef makes out in a SW. direction from its western end, and a similar bar extends in a NE. direction from the Great Brewster, nearly meeting the former, and leaving a very shallow passage, a hundred and fifty yards wide and full of shoals, between the two bars. It is only available at high water, and then only by those well acquainted with the dangers.

When nearly up with the Outer Brewster, and bound in by the Main Ship Channel, there will be seen to the southward of that island and to the eastward of Boston Light-house, a group of bare rocky islets stretching in an E. and W. direction. These are the Shag or Egg Rocks. They lie on the northern side of the entrance to the Main Ship Channel, half a mile to the southward of the Brewsters, and the same distance to the eastward of Boston Light-house. The rocks are from twenty to twenty-five feet above high water, extending in an E. and W. direction for a third of a mile, and are pretty bold-to.

Three hundred yards W. of the western end of the Egg Rocks, and on the northern side of the entrance, will be seen a low rocky islet of irregular shape, upon which stands a large light-tower with its accompanying dwelling-house and bell-tower. This is Light-house Island (sometimes called Little Brewster Island), and the tower is called Boston Light-house. It is a circular

tower of rough stone, eighty feet high, with a black lantern on top, from which is shown a revolving white light, of the second order of Fresnel, from a height of one hundred and eleven feet above the sea. The flashes are at intervals of half a minute, and the light is visible in ordinary weather seventeen miles. Connected with the light-house is an air-trumpet for foggy weather, giving blasts seven seconds long at intervals of forty-three seconds.

About eight hundred yards NNW. of Light-house Island (with which it is connected by a long bar or sand-spit, bare at low water) lies a very peculiar-looking island, about a hundred feet high, and presenting a precipitous face to seaward. This is the Great Brewster. Its very remarkable shape renders it a landmark not to be mistaken, but this shape can be more readily explained by a reference to the view of the Main Entrance. This island lies nearly NE. and S.W., and is three-eighths of a mile long. Its northern point is high and steep, and the land gradually rises toward the southward, attaining its greatest height about half-way between the northern and southern points. It then descends regularly almost to a level with the water, and again rises with an equal regularity to the southern point, which is nearly as high as the northern end. The whole of this sea-face is a precipitous water-worn cliff. The summit is smooth and grassy, but bare of trees.

From the south-western end of the Great Brewster a long, dry sand-spit or bar extends to the westward for three-quarters of a mile, to the Narrows. This is called Spit Bar, or Brewster Bar.

Point Allerton, on the southern side of the Main Entrance is a very conspicuous headland. It presents an appearance exactly similar to the Great Brewster (except that the northern end of the point is the lower), and its highest point is about midway between its northern and southern ends. It is a bare hill, one hundred and fifteen feet high, presenting a steep water-worn cliff-like face to the eastward. Its northern point being separated from the main hill by low land (as in the case of the Great Brewster) gives a very peculiar appearance to the head. (See view of Main Entrance.) The summit of Point Allerton is grassy, but bare of trees, and the sea-face is protected by a wall of granite.

At Point Allerton the southern shores of the Main Entrance turn abruptly to the westward. A narrow strip of beach, known as Stony Beach, half a mile long and forty yards wide, connects the western end of the hill with the high land of Hull. This land is formed by two or three regularly sloping hills, from one hundred to one hundred and twenty-five feet high, called Nantasket Hills. They are covered only with grass. On the highest there is an ancient earth-work of considerable size, and the remains of a redoubt may be discerned on the summit of the other. The lower hills present perpendicular cliff-like faces on their northern sides.

The village of Hull is built on the south-western sides of these hills. From seaward, parts of it may be seen, but after entering the harbor the hills

hide all but one or two of the highest steeples until to the westward of the cliffs and approaching Hull Gut, when the village will appear over the low land.

On the northern side of the channel, to the westward of Great Brewster, lies Spit or Brewster Bar; and on the western extremity of this bar will be seen an iron screw-pile light-house, called Narrows Light-house. It shows a fixed red light, of the fifth order of Fresnel, from a height of forty-six feet above the sea, and is visible ten miles. The light-house is painted brown.

Spit Bar, about three hundred yards E. of Narrows Light-house, sends off an arm in a south-easterly direction for an eighth of a mile, on the end of which is built a granite beacon surmounted by an iron spindle and cage, all painted red. This arm is False Spit, and the beacon is False Spit Beacon. In coming up the Main Ship Channel, when abreast of this beacon haul up to the north-westward to pass through the Narrows. This course leaves Narrows Light-house to the eastward, and a low island, entirely occupied by a granite fort, to the westward. This island is George's Island, and the fort is Fort Warren. The island lies N. by W. and S. by E., is three hundred and fifty yards wide, and a little over six hundred long. It is altogether occupied by the fort, which is a casemated granite work, surmounted by traverses of earth, and faced by earth-work water-batteries. The citadel or central house of the fort, which appears above the parapet when approaching it closely, is a mile and three-quarters W. $\frac{1}{2}$ S. from Boston Light-house. Boston is six miles (by the channel) above Fort Warren.

The Black Rock Channel here opens to the north-eastward, between Narrows Light-house and Lovell's Island. This island lies on the eastern side of the Narrows, a quarter of a mile to the north-westward of Narrows Light-house, and the same distance to the north-eastward of Fort Warren. It is very irregular in shape, and not over thirty or forty feet high in its highest part, which is near the centre. Its length is a little over half a mile, and its width varies from two hundred and fifty yards (at its southern end) to five hundred (near the middle).

Lovell's Island lies NW. and SE., and is bold-to on its south-western side; but its eastern and northern shores are obstructed by long ledges and extensive flats. There are two or three buildings and a wharf used by the United States Government for a buoy station on the south-western shore, near the northern end of the island.

On the western side of the channel, and directly opposite Lovell's Island, is Gallup's Island, narrow and bare of trees, and with a somewhat precipitous face on its northern side. It lies nearly E. and W., is over eight hundred yards long, and not quite three hundred wide near its western end, where it is widest. Its eastern end is a low, narrow sand-point. The cliff and sea-face of this island are protected from the action of the water by a granite sea-wall nearly a mile long. There is a group of buildings and a wharf used for

Quarantine purposes on the southern side of the island, but they are not visible from the Narrows.

From the western end of Gallup's Island shoal water extends in a northerly direction for three-eighths of a mile. On this is built a large black beacon, called Nix's Mate Beacon, which will be seen a little open to the westward when passing between Lovell's and Gallup's islands. It is a pyramidal granite beacon, painted black, having eight sides, and stands upon a large square granite base, — marking the centre of Nix's Mate Shoal and the junction of the Main with the Broad Sound Channels.

When nearly up with Nix's Mate Beacon the course is NW. for another square granite pyramid, painted red. This is on the northern side of the Broad Sound Channels, and is called Deer Island Point Beacon. It is built on the extreme southern point of Deer Island, which is covered at one-third flood. Preparations are being made by the United States Government to place a light-house on this point.

The large island a little open to the eastward, which shows as a bare, green smoothly-sloping hill, somewhat broken at its westward end by water-worn cliffs, is Deer Island. The wharf at Point Shirley and some of the houses on that point are just visible to the westward of the cliffs.

On coming abreast of Nix's Mate, Deer Island Beacon will come in range with a low island about two miles and a half off, and having several large spreading trees upon it. This is Apple Island. It is circular in shape, of moderate height, and about an eighth of a mile in diameter; lies midway between Point Shirley and Governor's Island, and is surrounded by flats. The range of this island and Deer Island Beacon is one of the Main Ship Channel marks.

After passing Nix's Mate the channel turns to the westward between Deer Island Beacon on the north, and a high, precipitous head, with a light-house on it, on the south. This head, which shows a steep, water-worn cliff to the northward and eastward, is called Long Island Head, and is the northernmost point of Long Island, which lies on the southern side of the main channel, and is about a mile and a half long, and from one hundred and fifty to six hundred yards wide. It extends in a NE. and SW. direction, with an undulating surface, and is bare of trees except in the neighborhood of the city almshouse.

From the middle of the channel, after passing Nix's Mate, this island will appear as a round hill, about eighty feet high, with perpendicular faces; in other words, only Long Island Head will show, the rest of the island being hidden by it. On the summit appear the light-house and keeper's dwelling, and the top of the almshouse building shows over the hill.

The light-house on the Head is an iron tower, painted white, twenty-seven feet high, and shows a fixed white light, of the fourth order of Fresnel, from a height of one hundred and twenty-one feet above the sea, visible sixteen miles.

Seen from the southward and eastward, Long Island presents quite a different appearance from that just described. Its full length and undulating surface is then seen, and will be described in its proper place.

On passing the head a granite sea-wall will be seen facing it. It is of great strength, and is twenty-one hundred feet in length.

Passing Long Island Head, the channel continues to the westward, through what is called President's Roads; and to the southward of the course will appear two islands of moderate height, with perpendicular faces, and lying N. and S. of each other. These are Spectacle Islands, or The Spectacles, as they are commonly called. They lie close together, and at low water are joined by a dry sand-bar. The northern island lies nearly E. and W., is seven hundred yards long and sixty-five feet high, with cliff-like faces, worn by the action of the water. The southern island is nearly square, being four hundred and fifty yards in diameter. It is sixty-five feet high at its highest point, and, like the northern island, its faces are precipitous except on the southern side, where the shore is low and sandy.

The Spectacles lie on the eastern side of the entrance to Back or Western Way. There is a passage between these islands and Long Island, often used by coasters, but it is unsafe for strangers. The water is shoal except on their northern side.

When past the Spectacles, on the way through President's Roads, a large island, presenting a precipitous face to the northward, and having a group of large houses on its summit, will open to the westward of them. This is Thompson's Island, which lies off the entrance to Neponset River, and on the western side of entrance to Back or Western Way. The island lies ENE. and WSW., and is a mile long. The group of buildings visible on its highest point, surrounded by ornamental grounds, is occupied by a Farm School. They stand near the middle of the island, where the land rises to a height of seventy-five feet. It is this group of buildings that is seen from the Main Channel, showing between the Spectacles. Nearly all the rest of the island is low land.

When fairly past the Spectacles the channel turns to the north-westward, and passes between Governor's Island on the north and Castle Island on the south.

Castle Island, easily recognized by Fort Independence, which is built upon it, is a small low island, lying about half a mile to the eastward of Dorchester or City Point and about a mile NW. of the Spectacles. The fort, which occupies the whole of the island, is a regular work, built of granite, and surmounted by sod traverses. There is a passage between Castle Island and Dorchester Point, but it is not safe for strangers. The shore of the island on the channel side is protected from the action of the sea by a strong sea-wall.

Governor's Island lies on the northern side of the channel, a little over

half a mile from Castle Island. It is of irregular shape, about half a mile long, and about seventy feet high at its highest point. The hill at its western end is covered with earth-works, known as Fort Winthrop. The south-eastern part of the island is much lower, and has a few small water-batteries near the shore. Flats extend from it in an ESE. direction for one mile, and are bare at low water; but an excellent channel, in which there is not less than three fathoms at low water, leads between it and Apple Island.

President's Roads, a wide and good anchorage, forming the Middle Harbor of Boston, is contained between Governor's Island Flats and Apple Island Flats on the north, Deer Island on the east, Long Island and the Spectacles on the south, and Castle and Governor's islands on the west. It is, within these limits, a mile and three-quarters long and nearly three-quarters of a mile wide.

To the westward of Governor's and Castle islands lies the Inner Harbor, which includes all that portion which lies abreast of the town up to Charlestown wharves.

South Boston, a large, high, and well-settled peninsula, forms the south-eastern extremity of Boston. It lies E. and W., and is two miles long. Its eastern end is called Dorchester or City Point. Houses are thickly clustered over the whole surface of the peninsula, and upon the highest point is a very conspicuous building with a cupola. This is the Blind Asylum, and is one of the marks for coming in by the Hypocrite Channel.

On the southern side of Dorchester Point is Dorchester Bay, which forms the approach to Neponset River, Thompson's Island forming the eastern side of the bay. On the west, low marsh-lands join the peninsula to the mainland at Dorchester. On the north and north-west, South Boston is separated from Boston proper by a narrow but deep channel, called Fort Point Channel, which leads into South Bay.

The city of Boston is built upon a peninsula which extends from the mainland in a NE. direction. This peninsula lies between Fort Point Channel and Charles River, the city being washed on three sides. Immediately opposite to the north-eastern extremity of Boston, and on the northern side of the Inner Harbor, lies East Boston, built on Noddles Island. This island was originally composed of salt-meadow, except at its ends, where the land is higher; but large portions of it have been reclaimed and built upon. The island lies on the eastern side of the harbor, and is separated from Charlestown by the Mystic River, and from the city of Chelsea by a narrow and shallow stream, called Chelsea River. Bridges connect it with the mainland to the northward.

Between Charlestown and East Boston is the confluence of the Charles and Mystic Rivers. The former runs to the eastward between Cambridge, East Cambridge, and Charlestown on the north, and Boston on the south. Its channel is very intricate and narrow, and is crossed by several bridges. The

Mystic takes its rise at Medford, three miles and a half above its mouth, and flows through a very crooked channel, but with a general direction about SE. to the eastern extremity of Charlestown. Here it is crossed by a bridge, called Chelsea Bridge, connecting Charlestown with Chelsea. At the bridge the Mystic runs about SSW. and joins the Charles at its junction with the Inner Harbor.

The United States Navy Yard occupies nearly all of the eastern shore-line of Charlestown. It is very conspicuous on account of its large ship-houses, foundries, smoke-stacks, and large granite buildings.

The Inner Harbor is irregular in shape, and has extensive flats, but a deep channel. It is about two miles long, and at its widest part, just off South Boston, is a mile in width; while at its narrowest, between Boston and East Boston, it is only a quarter of a mile wide. Extensive flats fill the large bight between South Boston and the eastern extremity of Boston proper, and are called South Boston Flats. These flats are now being reclaimed and built upon, extending the wharf-line to the edge of the channel; and when this is done the Inner Harbor will in no place have a greater width than half a mile.

GOVERNOR'S ISLAND CHANNEL.

This channel, which is only fit for steamers, begins at the eastern end of Governor's Island Flats, and runs in a WNW. direction, between Governor's Island and Apple Island, for a little over a mile and a half; then, turning abruptly to the southward, it runs between Bird Island and Governor's Island into the Main Channel, which it joins a little above the Upper Middle. It is crooked at its western end and narrow at both ends; but a steamship can carry not less than nineteen and a half feet, at mean low water, throughout its entire length up to the East Boston wharves. It is very well buoyed, there being but one danger left unmarked.

BACK OR WESTERN WAY.

This channel is used on the ebb, in light winds, to avoid being set out into the Sound at Nix's Mate, or into Black Rock Channel, at the south-eastern end of Lovell's Island. The entrance is between Thompson's Island and the Spectacles, whence it passes between the south-western end of Long Island and Moon Head; then, turning abruptly to the north-eastward, passes along the eastern shore of Long Island, between it and Rainsford Island, and thence towards George's Island into Inner Nantasket Roads. With care, this channel is safe even for strangers.

When abreast of the black buoy on Castle Rocks the entrance will bear SSE. A little to the westward of this bearing will be seen the precipitous face of Thompson's Island. It is surrounded by flats and shoals, which, on

its eastern side, extend off to a distance of three-quarters of a mile, with less than six feet at low water; but on its western side it is much bolder, and may be approached (if bound into Neponset River) within three hundred and fifty yards.

To the southward of Thompson's Island lies the peninsula of Squantum; and from the south-eastern end of the former a long and narrow sand-spit extends nearly S. by E. for five hundred yards, its southern end being within seventy-five yards of Squantum. Thus the island is nearly joined to the mainland, and there is no passage between them at low water.

On the eastern side of the entrance will be seen the Spectacle Islands, which will be nearly in range from this point of view. They are two islands of moderate height, bare of trees, and joined at low water by a dry bar. The northern island is sixty-five feet high, with cliff-like faces worn by the action of the water. On coming up with it there will be seen a group of buildings and a wharf on its southern end, where there is a low sand-point. The southern island, on approaching it, will be seen to be equally bare with the North Spectacle, but not so steep, although its height at the summit is the same. The northern face of this island is as precipitous as that of the North Spectacle, but this side is not visible from the Back Way. On the southern side the shore is low and sandy. Here there is a wharf making out to the edge of the channel from the western shore of the South Spectacle near its southern end.

When past the Spectacles on the SSE. course, Moon Island will appear on the western side of the channel, and Long Island on the eastern side. Moon Island cannot fail to be recognized by reason of its high, bare, precipitous head, called Moon Head, which forms its eastern end. Viewed from near the Spectacles it will look like an extension of the eastern face of Squantum.

Moon Island lies E. by N. and W. by S., and is three-quarters of a mile long. The Head, which is eighty-five feet high, forms the principal part of the island. The city sewerage reservoirs occupy its western slope; and the sewer embankment, extending about W. over one-third of a mile, joins it to the peninsula of Squantum, whose rugged hills appear to the westward of Moon Island.

Opposite to Moon Head appears, on the eastern side of the channel, the south-western extremity of Long Island, presenting a bare hill fifty feet high, with precipitous face. To the northward of this hill the surface slopes regularly almost to sea-level; rises again to a height of twenty or thirty feet; then falls again, and so continues, presenting a series of elevations and depressions, the hills varying from fifty to ninety feet in height. The highest land on the island is about midway between its northern and southern ends, where a smooth green hill rises to a height of ninety feet. On the northern slopes of this hill will be seen — on passing to the southward of Spectacle Islands — the City Almshouse; and here is a large wharf used as a steamboat-

landing. Still farther to the northward rises Long Island Head, eighty feet high, with the light-house on its summit. It will appear like a separate island, the land between it and the base of the hill, upon which the Almshouse is built, being so low as to be scarcely perceptible.

The channel passing between Moon Head and Long Island leads directly towards a bare precipitous head, with water-worn face, behind which rises a still higher hill, smooth and grassy, but not so steep. The high hill is Quincy Great Hill; the smaller head in range with it is Nut Island. The latter, sixty feet high, is two miles to the south-eastward of Moon Head, and lies on the eastern side of Quincy Bay.

To the southward and a little to the westward of Nut Island, and about three-quarters of a mile off, will appear a low, bare, rocky islet with one or two huts upon it. This is Hangman's Island, which lies in the middle of the entrance to Quincy Bay, about midway between Moon Island and Nut Island, and is surrounded by shoals. To the north-eastward of this island and in range with the western end of Peddock's Island will appear a large beacon of open-work, with a granite base, and surmounted by a staff and cage. This is on Sunken Island, and is one of the guides to the approaches to Weymouth Fore River. Neither this ledge nor Hangman's Island is in the way of vessels bound out by the Back Way.

When well past the south-western end of Long Island the channel turns abruptly to the north-eastward along the eastern face of that island, between it and Rainsford Island. This will appear as a low island, nearly bare of trees, but having several groups of buildings upon it, and a long wharf making off from its southern end. The buildings, which formerly belonged to the Quarantine Station, which was established upon this island, are now used for almshouse purposes, and are partially concealed by trees planted around them for ornament and shade. To the southward of the western end of the island a long ledge of bare rocks will be seen extending in a southerly direction a considerable distance. These are the Quarantine Rocks, and are among the principal obstructions to the entrance to Weymouth.

The course to the north-eastward leads directly towards the western end of Gallup's Island, which, from this point of view, will show as low, gently-sloping land, with the Quarantine buildings close to the shore, and a wharf making out to the southward and westward. Nix's Mate Beacon will appear a little to the northward of the course, and Long Island Light-house still farther to the westward.

When past the eastern end of Rainsford Island the channel turns to the eastward, the course leading directly for the southern angle of Fort Warren on George's Island, until within three-eighths of a mile of it, when it turns to the southward, leading directly towards a high bare hill, on the western slopes of which will be seen the village of Hull. This is Nantasket Hill. This course leads into Nantasket Roads, after which the directions for the Main Ship Channel must be followed.

OTHER PASSAGES IN BOSTON HARBOR.

There is a deep and unobstructed passage with not less than five fathoms leading between George's Island and Gallup's Island. Vessels passing up the Narrows on the flood-tide may, if the wind be light, be set through this passage. In such a case they will find good anchorage anywhere to the southward of Gallup's Island, or to the westward of George's Island. If such a vessel be of light draught, she may avail herself of a channel with ten feet at mean low water which leads to the northward, between Nix's Mate and Long Island Head, into the Main Ship Channel.

A channel, called Sculpin Ledge Channel, leads from President's Roads into the Back or Western Way, and is commonly used by vessels bound to Quincy and Weymouth. It is good for eleven feet at mean low water. The channel lies nearest to Long Island, extensive shoals making off from the eastern shore of the Spectacles.

BLACK ROCK CHANNEL.

This is a narrow channel which leads from the Main Ship Channel in a NE. direction, between Lovell's Island and Narrows Light-house, into Hypocrite Channel. It is dangerous, and is never used by large vessels unless there is ice in the Narrows. The south-eastern side of this passage is marked by Spit Bar; the north-western side by the shoals on the eastern side of Lovell's Island. Strangers must not attempt it.

SHIRLEY GUT.

This narrow and intricate passage is only fit for steamers, and must never be attempted by strangers, under any circumstances. Thirteen feet at mean low water may be taken through it under the guidance of a pilot; but the channel is crooked and dangerous, with a swift current. It leads between Point Shirley and Deer Island, and is about one hundred and fifty yards wide.

DORCHESTER BAY.

This large shallow bay lies between South Boston on the north; the shores of Dorchester, including Old Harbor Point and Savin Hill, on the west; Commercial Point and Squantum Meadows on the south, and Squantum Head and Thompson's Island on the east. A channel, carrying about two fathoms at mean low water in its most shallow part, enters the bay near Thompson's Island, and runs in a south-westerly direction to the Cow Pasture Flats, which make off from the southerly side of Old Harbor Point. From the point of these flats it runs to the westward until past Farm Point Bar, where it turns to the southward and enters Neponset River.

From Dorchester Point, the eastern point of the peninsula of South Boston, the shore of the bay runs to the westward a mile and a quarter, then turns to the southward for nearly half a mile, and then to the eastward into a long marshy point, called Old Harbor Point, thus forming a large but shallow cove, dry at low water, and called Old Harbor. A small cove, also dry at low water, makes in on the southern side of Old Harbor Point, between it and a steep, partially-wooded hill, one hundred feet high, and called Savin Hill. The shore extends to the eastward from the base of this hill into a long narrow sand-point, called Savin Point or Fox Point. (The City Sewerage Pumping Station and Bay State Gas Works are on Old Harbor Point.)

On the southern side of Savin Hill another large cove makes in, the shores of which are thickly settled. It is dry at low water, and is crossed near its head by a bridge, over which passes the Old Colony Railroad. The southern point of the entrance to this cove is a flat peninsula, called Commercial Point, composed of low land, upon which are located the extensive works of the Boston Gas-Light Company. This peninsula forms the western point of entrance to

NEPONSET RIVER.

This is the first river emptying into Boston Harbor to the eastward of South Boston. It leads to Neponset Village, one mile above its mouth, and thence to Milton Mills, two miles farther by the river. It is narrow and crooked, the approaches are dangerous, and it is not considered safe for strangers to enter without a pilot.

The river is a third of a mile wide at its mouth, but grows gradually narrower until, at Milton Mills, it is only one hundred yards in width. The western side of the entrance is thickly settled, and is marked by the Gas Company's wharf, which extends out to the edge of the channel. The eastern shores of the river are composed almost entirely of salt-meadow, and are destitute of houses.

In entering this river vessels pass between the Spectacles and Castle Island, keeping along the western shore of Thompson's Island and steering nearly for Commercial Point. When past Thompson's Island the thickly-settled country between Mount Bowdoin and Neponset will be seen ahead; and, on the western side of the channel, Savin Hill will appear as a high, steep hill, partly wooded, and with a number of handsome houses dotting its slopes. It will be noticeable as the only high land on the shore between Dorchester Point and Squantum. To the southward of the hill, however, and well back from the shore, will appear the summit of Mount Bowdoin, — one hundred and seventy feet high. Its sides are cultivated, and its whole surface is dotted with houses and orchards.

Next to the southward will appear Commercial Point, marking the western

side of the mouth of the river; and to the eastward of it a low, broad, marshy point will be seen, with the mouth of the river between them. This point, called Farm Point, is the eastern point of entrance to Neponset River, and the extensive marshes, of which it is the extremity, are called Squantum Meadows. There are several patches of firm ground on the peninsula (which are occupied by a hotel and summer cottages), and two or three small groves of trees. To the eastward of it, and just to the southward of Thompson's Island, the high land of Squantum will appear, grassy, with groups of trees, and under cultivation. Squantum separates Dorchester Bay from Quincy Bay, — the large, shallow bay which makes in between Squantum and Hough's Neck.

On entering Neponset River between Commercial Point and Farm Point the course of the stream is at first S. by E. for nearly a mile, — between low, marshy banks, with occasional groves of trees, — until abreast of Neponset, which is seen about a quarter of a mile back from the western shore. Thence the stream makes a turn about SW. by W. for a quarter of a mile, passing under the Old Colony Railroad bridge and the county bridge just to the southward of it. Thence it runs S. by W. (still between marshy banks) for one-third of a mile, thence SW. by W. for a quarter of a mile, and continues its windings, with an average width of a little over a hundred yards, to Milton Mills Village. This village is two miles and a quarter above the mouth of the river in a straight line, but nearly three miles and a half by the windings of the river. The land upon which the village stands is high, slopes gently to the water, and is under cultivation.

About a mile above the county bridge a third bridge carries the road to West Quincy, across the river. All these are, of course, draw-bridges.

QUINCY BAY.

This large but shallow bay indents the southern shore of Boston Harbor just to the eastward of Neponset River. On the west it is separated from that river by the peninsula of Squantum; on the east, Hough's Neck separates it from Weymouth Fore River. Between these two points the bay is two miles and one-third wide and about a mile long. Its shores are mostly low and gently sloping towards the water, cleared and under fine cultivation; but high steep hills will appear behind and over the low lands. Of these, the highest summits are those of Forbes' Hill and Mt. Wollaston.

The village of Quincy is situated about a mile inland from the shores of this bay, near its eastern end. It has no communication by water with the bay, but there is a narrow frontage on a small stream emptying into Town River Bay.

The peninsula of Squantum, which forms the western boundary of Quincy Bay, is of irregular shape, lies ENE. and WSW., is a mile long, and has an

average width of two-thirds of a mile. Its surface is hilly, with some trees on the lower slopes, and the highest land is about one hundred and twenty-five feet above sea-level. At its western end, where it joins the mainland, it is composed almost entirely of salt-meadow, forming part of the Great Meadows which extend to Neponset river. The whole of the high land of Squantum is under cultivation, or occupied by summer residences. Its northern point is a steep hill, one hundred feet high, with a few houses at its base.

To the eastward of Squantum lies Moon Island, easily recognizable by the precipitous head on its eastern end. It is entirely bare of trees, and is now joined to Squantum by a causeway.

Hough's Neck forms the eastern boundary of Quincy Bay and separates it from Weymouth Fore River. It is of irregular shape, lies about E. by N. and W. by S., is about a mile long, of moderate height, the surface being smooth and gently sloping, and bare of trees except orchards. At its northeastern end it terminates in a smooth green hill, one hundred feet high, with precipitous faces, called Quincy Great Hill. Two hundred yards to the northward of it, but connected with it at low water, lies Nut Island, a small bare islet, sixty feet high, with a precipitous face on its northern side, the cliff descending abruptly from the summit of the island to the water. The channel from the westward into Weymouth passes between this island and Peddock's Island.

Half-Moon Island lies nearly half a mile from the southern shore of Quincy Bay, off the mouth of Black's Creek. It is a crescent-shaped sandy shoal or bank, from seven to ten feet out at low water, and covered at high water, but has the appearance of an island, when uncovered, by reason of the surrounding flats being much lower. It is of no importance.

Hangman's Island is a small, bare, rocky islet, lying off the mouth of Quincy Bay, midway between Moon Island and Nut Island, is surrounded by shoals, and must not be closely approached. It is one of the dangers in the approach to Weymouth from the westward.

WEYMOUTH FORE RIVER.

This river empties into Boston Harbor to the eastward of Hough's Neck, Quincy Great Hill forming the western point of entrance and Grape Island the eastern. That portion of the Harbor into which this river empties is usually called Hingham Bay, and its boundaries are: on the east, Nantasket Beach; on the north, Point Allerton and the shore from thence to Windmill Point; on the west, Peddock's Island and Hough's Neck.

Weymouth Fore River is quite wide at its mouth, but quickly diminishes, until at the bridge it is only an eighth of a mile in width. It has not less than three fathoms water as far as the bridge, and even for some distance

above it; but the channel is narrow and somewhat crooked, and it is not safe for strangers to enter it.

Grape Island lies E. and W., is about half a mile long, and has a somewhat saddle-shaped appearance when viewed from the northward, the land in the centre being the lowest. Passing it, there opens a narrow passage, nearly dry at low water, which leads to the eastward towards Hingham Harbor. The southern side of this passage is formed by a long, low and narrow point, called Lower Neck, entirely bare of trees, as is also Upper Neck, just to the southward of it. The former separates Weymouth Fore River from Weymouth Back River, which empties into Hingham Bay just to the eastward of Fore River.

The entrance to Weymouth Fore River from the eastward is through Hull Gut, — the narrow but deep passage which leads into Hingham Bay between Windmill Point and Peddock's Island.

Windmill Point is the low sandy point which makes out to the westward from the foot of Nantasket Hills. It is occupied by Hotel Pemberton, and is the terminus of the Nantasket Beach Railroad.

On the western side of Hull Gut will appear the high round head, with precipitous faces, which forms the northern end of Peddock's Island. This head is over one hundred feet high, and covered only with grass. Passing to the southward, it will be seen to be connected with the rest of the island by a narrow strip of low land about three hundred yards long. The whole of the island is bare of trees and the surface undulating. The length is a mile and a quarter, and the shape very irregular. On its southwestern side, between it and Nut Island, leads the western passage into Weymouth.

A small bare islet, lying about two hundred yards off the southern shore of Peddock's Island, and connected with it at low water, is called Pen or Prince's Head.

Bound into this river through Hull Gut, when abreast of Prince's Head, you will pass to the westward of a small, low, bare islet, called Sheep Island. It lies a little over half a mile to the south-eastward of Prince's Head, and about the same distance to the northward of Grape island; is surrounded by shoals, and must not be closely approached. When past it, the channel leads to the southward and well to the eastward of a square granite beacon, surmounted by a staff and cage. This is on Pig Rocks, which lie a little over half a mile to the westward of Quincy Great Hill.

After passing between Grape Island and Quincy Great Hill there will be seen to the westward, well in with the shore of Hough's Neck, a bare islet, called Raccoon Island, connected with the Neck at low water. A little to the southward the southern point of Hough's Neck runs into a long point or head, called Rock Island Head, sixty feet high, smooth and grassy. On its southern side the shore makes in to the westward, forming a large cove,

dry at low water, called Rock Island Cove, whose shores are mainly composed of meadow

On the eastern shore of the river the first prominent point lies nearly opposite to Rock Island Head, is called Eastern Neck, and is the first point above Upper Neck. It is a long peninsula, lying E. and W. between Fore and Back Rivers, is undulating, bare of trees, and about sixty feet high near its western end. Here the shore turns to the southward, and then to the westward, forming a shallow cove, which skirts the base of a smooth green hill, with somewhat precipitous face, called Weymouth Great Hill, a hundred and forty-five feet high. Hence to the bridge the eastern shores are of moderate height, cleared and cultivated. The settlement of Old Spain (North Weymouth) will be visible about half a mile back from the shore. All of this part of the shore presents a steep, but not high face towards the river.

On the western side of the river, after passing Gull Point (the southern point of the entrance to Rock Island Cove) will be seen the village of Germantown, — a small hamlet, situated on the northern side of the entrance to Town River Bay which leads up to Quincy. Germantown is situated among smooth, low, cleared lands, and has several wharves both on Fore River and on Town River Bay.

On the southern side of the entrance to Town River Bay is Bent Point (Quincy Point), a long, low, thickly-settled point, with wharves and docks on its eastern face. Quincy Point Village occupies the shores on the southern side of the entrance to Town River Bay, as Germantown does the northern side. The county bridge crosses at this village, — the river being here about an eighth of a mile wide, but after passing under the bridge it soon widens out into a large bay.

The point on the eastern side of Fore River where the bridge crosses is wooded, and is remarkable as being the first wooded point met with on this side of the river. Here the eastern shores spread away to the south-eastward and terminate in a shallow cove, whence a small streamlet or brook leads to North Weymouth. There is no passage, however, even for boats.

On the western shore, just to the southward of the bridge, opens Ruggles' Creek, — a shallow stream running to the westward between Bent Point and a cleared and settled peninsula of moderate height called Braintree Neck. On the southern side of this peninsula makes in Hayward's Creek, — another shallow stream which leads up to Newcomb's Landing. Above this creek the shore runs about ESE. for half a mile, and then turns to the southward toward Weymouth Landing, the river being here contracted to the width of a small creek with a very shoal and crooked channel. The shores are almost all cleared, settled, and highly cultivated, with occasional groves of trees.

Town River Bay makes in on the north-western shore of Fore River, as before mentioned, between the villages of Germantown and Bent Point. It

is very shoal, and not safe for strangers to enter at any time, being only about one hundred and seventy-five yards wide at its entrance; but it rapidly widens after passing Bent Point to nearly three-eighths of a mile. The northern shores are mostly marshy; the southern shores are cleared and settled, with somewhat steep faces.

On the western side of the peninsula upon which Germantown is built there makes in a large but shallow cove, called Sailor's Snug Harbor. It is dry at low water. The name does not indicate any advantages as a harbor, but is derived from the institution of that name for superannuated ship-masters, which is built upon its banks. The eastern point of the entrance to this cove is called Phillips' Head.

Town River empties into the bay nearly a mile above Bent Point. It is nothing but a small creek, very crooked, and extremely shoal. The sloops which go to Quincy can only sail to the mouth of the canal.

WEYMOUTH BACK RIVER.

This river empties into Hingham Bay just to the eastward of Fore River, from which it is separated by Lower and Eastern Necks. It is narrow, crooked, and shallow, and is of little commercial importance. Directly across its mouth lie Grape and Slate Islands, which are connected at low water, and completely shut off the entrance from the northward, leaving a very narrow, crooked, and shallow passage on each side of these islands. That on the eastern side has but five feet at mean low water, and the western channel (which leads between Grape Island and the Lower Neck) has three fathoms, but is so extremely narrow as to render it impossible for anything but a steamer to keep in the best water. Six feet at mean low water is all that can be taken up to the bridge.

At its mouth Weymouth Back River is nearly seven hundred yards wide, but most of this width is occupied by the large flats, dry at low water, which make off from the eastern side of the entrance, extending to the northward nearly to Grape Island, and to the westward within two hundred and fifty yards of Lower Neck.

From its mouth the river runs first about S. $\frac{1}{2}$ W. half a mile, then turns abruptly, and runs W. for five-eighths of a mile to a headland on the southern bank, called Stodder's Neck, which is of moderate height, but has steeply-sloping faces on its northern and western sides. Its summit is bare of trees, but there is a thin growth on its western and southern slopes. A small narrow cove makes in on its eastern side, called Stodder's Cove. At Stodder's Neck the river widens out considerably and takes an abrupt turn S., which course it continues with slight variation to its head. A quarter of a mile above the Neck it is crossed by a bridge, and beyond this it is very narrow between its banks, and so continues for about one-quarter of a mile, forming

what is called The Narrows. Above this point it becomes a wide and shallow bay, and so continues to the southward for three-quarters of a mile, beyond which it is a mere creek.

Grape Island, which lies in an E. and W. direction across the mouth of Back River, is about half a mile long, and presents, when viewed from the northward, a somewhat saddle-shaped appearance, the land in the middle being the lowest. It is entirely bare of trees, of moderate height, with a somewhat steep face on its northern and western sides, and is surrounded by shoals. On the east it is connected by a flat, bare at low water, with Slate Island, a small, low, thinly-wooded island, an eighth of a mile to the eastward, and about five hundred yards to the northward of the entrance to Back River. These two islands shut off any direct approach to the river, leaving only the narrow and crooked channels mentioned above.

No stranger should attempt to enter this river, under any circumstances, as none of the shoals and ledges are buoyed, and no sailing directions can be given for the channel.

HINGHAM HARBOR.

This harbor is formed by a large but shallow cove, which makes into the mainland in the south-eastern corner of Hingham Bay. It is a mile long and seven-eighths of a mile wide at its widest part, but at low water is a dry flat with the exception of a narrow and crooked slue which runs along the eastern shore. The village of Hingham occupies the southern and part of the eastern shores of this harbor. The principal entrance to this harbor is through Hull Gut. When past the Gut the course leads to the south-eastward, between two small bare islands nearly a mile apart. That to the eastward, which is also much the larger of the two, is called Bumkin Island. It is about fifty feet high, smooth, and entirely bare of trees; lies in an ESE. and WNW. direction, and is three-eighths of a mile long. Its western end is somewhat bold-to, and may be closely approached; but on the east it is connected with Nantasket Beach by an extensive flat, dry at extreme low tides.

The small island on the western side of the passage is Sheep Island. It is low, bare, about one-eighth of a mile long, and surrounded by shoal water. From Bumkin Island it bears W. by N., three-quarters of a mile distant.

The channel into Hingham leads close along the western shore of Bumkin Island, and here opens to the eastward a narrow channel leading into Weir River. On the southern side of the entrance to this river will be seen a bare grassy head, called World's End, about eighty feet high, with a steep face on its western side. On its southern side it is joined by a very narrow strip of low land, about one hundred yards long, to another high, smooth, grassy hill with a precipitous face on its western side. This is called Planter's Hill, and forms the eastern point of the entrance to Hingham Harbor. It is one hundred feet high, and its southern slopes are under cultivation.

The western point of the entrance to Hingham Harbor is called Crow Point. When past Bumkin Island this point will appear as a high bare hill, with a steep face to the northward, sixty-five feet high, and bare of trees. A pier or landing is built out from its eastern end to the edge of the channel. Three-eighths of a mile to the southward of this point a long narrow cove, called Walton's Cove, makes into the western shore. On the southern side of the entrance to this cove is a large, high, smooth hill with a somewhat steep face on its northern side, called Otis' Hill. This hill separates Walton's Cove from a long narrow cove, called Broad Cove, which makes in on the southern side of the hill.

On the eastern side of Hingham Harbor the only indentation of any size makes in on the southern side of Planter's Hill, and is called Martin's Well. All of these coves are dry at low water.

In coming into this harbor several small islands will be noticed lying apparently in the middle of the passage. The most northerly of these is called Chandler's Island, and is nearly two hundred yards square, low, bare and rocky. From Crow Point it bears SE. by E. $\frac{1}{2}$ E., one quarter of a mile distant. It lies on the eastern side of the channel, which here takes an abrupt turn to the eastward, passing to the northward of two small rocky islets, the westernmost of which, called Ragged Island, lies about three hundred and fifty yards SW. from Chandler's Island, and one-quarter of a mile E. of the entrance to Walton's Cove. It is low, bare and rocky, three hundred yards long, and there is no passage to the westward of it except at high water. About one hundred and fifty yards E. of this island lies Sailor's Island, also rocky and bare, lying E. and W., and distant about two hundred yards in a SSE. direction from Chandler's Island. It marks the second turning point in the channel, which here runs to the southward past the eastern end of this island. The island itself is about two hundred and eighty yards long.

The channel continues to the southward from Sailor's Island for three hundred and fifty yards, then runs to the eastward until within about one hundred and fifty yards of the eastern shore, near the wharf. Here it turns to the southward, and skirts the eastern shore at about the same distance, to the head of the harbor.

In the middle of the flats, about a quarter of a mile to the northward of the head of the harbor and one-third of a mile to the southward of Sailor's Island, lies a very small bare islet, called Button Island. It is only about fifty yards in diameter.

THE GANGWAY.

This is a narrow channel which leads along the eastern shore of Boston Bay from Scituate to the northward, threading the intricate passages among the Cohasset Rocks. Although there is good water through its entire length it is used only by vessels of light draught, and by them only when piloted by

an experienced pilot. No stranger should ever attempt this passage even by day; it would be impossible by night.

From Scituate to Cohasset Entrance the shore is guarded by many bare and sunken ledges lying at various distances from the land, dangerous in the extreme, and many of them not buoyed. To thread the channels between these requires an experienced pilot, and, since Scituate light has been extinguished, few of these dare attempt the passage at night.

COHASSET HARBOR.

This harbor is situated at the south-eastern end of Boston Bay, and is formed by a large but shallow cove, of irregular shape, which makes into the shore on the western side of Strawberry Point. The entrance lies five miles and a quarter SE. from Point Allerton. The eastern and southern shores are composed almost entirely of salt-meadow, while the western shores show innumerable sand-hillocks interspersed with marshy land.

This harbor cannot be entered by strangers, for it is so surrounded by bare and sunken ledges as to need all the skill of those well acquainted with the locality to enable them to pass safely through. There are three channels commonly used, — one, the Western or Brush Island Channel, which enters between Brush Island ledge and Chittenden Rock; the second, leading between West Hogshead Rock and the Grampuses, called the Middle Channel; and the third, called the Eastern Channel, which leads between East Shag Rock and the West Willies.

On approaching this harbor the most conspicuous object is Minot's Ledge Light-house, built on the Outer Minot, — the most northerly of the Cohasset Rocks. It is a dark-gray granite tower, which shows a fixed white light, of the second order, from a height of ninety-two feet above the sea, visible sixteen miles. At low water the Outer Minot is bare, as are also many of the rocks inshore of it between the light-house and Strawberry Point. Strawberry Point, which marks the eastern boundary of Boston Bay, is a low cleared point with groups of houses scattered here and there over its surface. It is a summer resort of some note, the well-known Glades House being situated upon it. Masses of bare and sunken ledges, with a few bare islets, surround this point, and render a close approach to it very hazardous.

City of Boston.
DEPARTMENT OF PARKS.

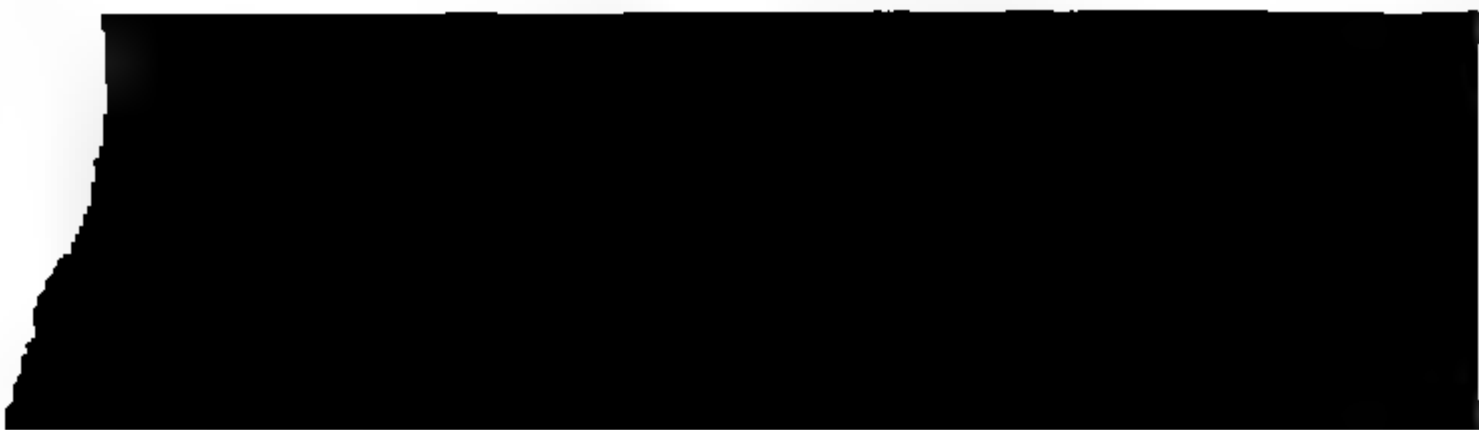
FOURTEENTH ANNUAL REPORT
OF THE
BOARD OF COMMISSIONERS
FOR THE
YEAR 1888.

WITH THE COMPLIMENTS OF

BENJAMIN DEAN,
PATRICK MAGUIRE,
JOHN F. ANDREW,

COMMISSIONERS OF PARKS.

1889.



City of Boston.
DEPARTMENT OF PARKS.

FOURTEENTH ANNUAL REPORT
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PRINTED FOR THE DEPARTMENT.
1889.

PRESS OF
ROCKWELL AND CHURCHILL,
BOSTON.

DEPARTMENT OF PARKS.

REPORT.

To the Honorable the City Council of the City of Boston: —

Section 15 of the Act of 1875, Chapter 185, entitled "An Act for the laying out of Public Parks in or near the City of Boston," requires that the Board of Park Commissioners "shall annually, in the month of January, make to the City Council of Boston a full report of its doings for the preceding year, including a detailed statement of all their receipts and expenditures."

In accordance therewith, the Board has the honor to submit the following report: —

FINANCIAL STATEMENTS.

I.

*Receipts and Expenditures of the Department for the Year
1888.*

THE PARKWAY.

LAND ACCOUNT.

MUDDY RIVER.

Balance unexpended, Dec. 31, 1887	<u>\$69,130 08</u>
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Expenditures.

Amount paid for land in 1888	\$3,742 80	
Balance unexpended, Dec. 31, 1888	65,387 28	
	<hr/>	\$69,130 08

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$177,348 69	
Amount transferred from Appropriation for Main-		
tenance	4,366 04	
	<hr/>	\$181,714 73

EXPENDITURES FOR CONSTRUCTION.*Roadways, Sidewalks, Gutters, and Drainage.*

Roadways: labor and mate-		
rials	\$46,834 87	
Curbs and walks: labor and		
materials	14,587 80	
Gutters: labor and materials,	10,000 46	
Drainage: labor and mate-		
rials	4,788 41	
	<hr/>	\$76,211 54

Excavating, Grading, Loam, and General Work.

Grading: labor and mate-		
rials	\$21,945 54	
Dredging: labor and mate-		
rials	12,353 59	
Superintendence and general		
work	7,299 79	
Loam: labor and materials .	7,236 06	
Engineering expenses . . .	2,371 62	
Fence: labor and materials .	82 80	
	<hr/>	51,289 40

Filling.

Amount paid B. & A. R.R.		
under contract for filling .	\$27,214 65	
Advertising	176 55	
	<hr/>	27,391 20
Amount carried forward,		\$154,892 14

Amount brought forward, \$154,892 14

Plantations.

Labor and expenses	10,531 39
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Agassiz Bridge.

Expenses of construction, labor, and materials	8,997 88
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Plans and Designs.

F. L. & J. C. Olmsted, Landscape Architects, and expenses 1,682 00

Machinery, Tools, and Implements.

Road-rollers, water-cart, etc.	1,295 83	
	<u>1,295 83</u>	\$177,848 69

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and ex-	
penses	\$2,859 49

Repairs and care of buildings,	
Muddy River	299 56

Signs and notices 91 02

Repairing Beacon Entrance	
Bridge	57 08
	<u> </u>
	\$2,807 15

Park Police.

Pay of Park Keepers . . \$1,469 05

Police Equipments and Sup-		
plies	89 84	
	—————	1,558 89

4,866 04
----- **\$181,714 78**
=====

ARNOLD ARBORETUM.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from Appropriation for main-	
tenance	\$3,147 62

Amount transferred from loan for Public Park Construction	547 47	
	<u>547 47</u>	\$3,695 09

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Expenses of construction, la-		
bor, etc.	\$99 14	
Fuel, supplies, carting, etc. .	1 38	
Materials of construction .	14 25	
	<hr/>	\$114 77

Plantations.

Labor	432 70	
	<hr/>	\$547 47

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers . . .	\$1,568 02	
Police equipments and sup-		
plies	2 41	
	<hr/>	\$1,570 43

Care of Grounds and Buildings.

Watchmen, labor, and ex-			
penses	\$1,544 19		
Signs and notices	88 00		
	<hr/>	1,577 19	
		<hr/>	8,147 62
			<hr/>
			\$3,695 09

FRANKLIN PARK.

LAND ACCOUNT.

Amount transferred from loan for Public Park Lands . . .	\$9,028 57
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Expenditures.

Amount paid for land in 1888	\$9,028 57
--	------------

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Con-	
struction	\$244,887 22
Amount transferred from Appropriation for main-	
tenance	8,835 51
	<hr/>
	\$253,722 73

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Surfacing roads . . .	\$79,200 06
Grading roads . . .	50,617 07
Paving blocks . . .	6,130 22
Paving . . .	1,514 20
Curbstones . . .	644 60
	<hr/> \$138,106 15

Clearing and Grading Grounds, Drainage, and General Work.

Grading grounds . . .	\$25,318 53
Drainage . . .	11,812 43
Superintendence and gen- eral work . . .	7,674 99
Engineer's assistants and expenses . . .	5,554 99
Clearing grounds . . .	8,141 77
	<hr/> 58,502 71

Structures.

The Shelter — excavating, stone-work, etc. . .	\$13,057 03
Amount paid Creesy & Noyes under contract .	18,000 00
Flag-staff and fittings, guys, serving, etc. . .	1,019 67
Advertising, printing, and drafting . . .	850 83
	<hr/> 27,427 03

Park Wall and Gateways.

Materials, labor, and expenses .	5,826 99
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Overlook.

Materials, labor, and expenses .	5,237 91
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Ellicott Arch.

Materials, labor, and expenses .	4,842 68
----------------------------------	----------

Plantations.

Labor and expenses . . .	3,227 60
--------------------------	----------

Amount carried forward, \$287,671 07

Amount brought forward, \$237,671 07

Playstead Green.

Labor and materials 2,657 01

Machinery, Tools, and Implements.

Steam drill, road-rollers, water-cart,	
and mower	1,980 61

Water Supply.

Water-pipes and labor	.	.	.	1,801 28
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Plans and Designs.

Landscape architects and expenses	827 25
	———— \$244,887 22

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers	.	\$4,082	37
Pay of sub-keepers	. .	1,913	60
Equipments and supplies	.	752	25
		<hr/>	\$6,748 22

Care of Grounds and Buildings.

Expenses	\$1,536 52	
Labor	481 02	
Signs and notices	69 75	
	<u>2,087 29</u>	
		<u>8,835 51</u>
		<u>\$253,722 73</u>

CHARLES RIVER EMBANKMENT.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Con- struction	\$37,415 95
Amount transferred from Appropriation for main- tenance	1,972 82
	<hr/>
	\$39,388 77

EXPENDITURES FOR CONSTRUCTION.

Filling, Grading, Loam, and General Work.

Grading, labor . . .	\$11,626 25	
Loam	10,863 49	
Filling and rip-rap under		
West Boston bridge . . .	2,461 47	
Engineering expenses . . .	684 48	
General work	631 28	
	<hr/>	\$26,266 92

Walks and Drainage.

Gravel	\$2,847 70	
Drainage	2,208 50	
Labor on walks	44 27	
	<hr/>	5,100 47

Iron Railing and Fence.

Railing on sea-wall . . .	\$4,112 71	
Fence around Gymnasium		
ground — advertising . . .	46 25	
	<hr/>	4,158 96

Plantations.

Labor	1,021 85	
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Plans and Designs.

Landscape architects and expenses . . .	825 75	
---	--------	--

Machinery, Tools, and Implements.

Rollers	42 00	
	<hr/>	\$37,415 95

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Labor and expenses . . .	\$63 05	
Repairs on sea-wall . . .	54 83	
Signs and notices	43 88	
	<hr/>	163 26

Park Police.

Pay of Park Keepers	1,809 56	
	<hr/>	1,972 82
		<hr/>
		\$39,388 77

MARINE PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from Appropriation for main- tenance	\$3,568 11	
Amount transferred from loan for Public Park Con- struction	121,060 84	
	<u>121,060 84</u>	<u>\$124,628 45</u>

EXPENDITURES FOR CONSTRUCTION.

Structures.

Amount paid under con- tract with Builders' Iron Foundry for iron pier	\$112,184 98	
Inspection and engineer- ing expenses	1,902 74	
Temporary pier, connec- tion with iron pier	995 00	
Advertising contracts for iron pier and railing	160 60	
	<u>115,243 27</u>	\$115,243 27

Filling, Grading, and General Work.

Filling material	\$1,141 83	
Superintendence and general work	858 06	
	<u>1,499 89</u>	

Curbing.

Amount paid under con- tract for curb	\$3,823 42	
Labor in setting curb	893 02	
Advertising	100 74	
	<u>4,817 18</u>	
		<u>121,060 84</u>

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen and labor on grounds	\$2,321 40	
Expenses	705 96	
Signs and notices	10 50	
	<u>3,037 86</u>	
<i>Amounts carried forward,</i>	<u>\$3,037 86</u>	<u>\$121,060 84</u>

Amounts brought forward, \$3,087 86 \$121,060 84

Park Police.

Pay of Park Keepers	530 25		
	<u> </u>	3,568 11	
		<u> </u>	<u>\$124,628 45</u>

WOOD ISLAND PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . \$2,779 79

EXPENDITURES FOR CONSTRUCTION.

Neptune Bridge.

Superstructure	\$2,091 70	
Iron railing	257 94	
Printing and advertising	86 94	
Engineering expenses	8 66	
	<u> </u>	\$2,440 24

Grading and General Work.

Grading : labor and materials	833 55	
Superintendence and general work	6 00	
	<u> </u>	839 55
		<u>\$2,779 79</u>

DEPARTMENT APPROPRIATION.

Balance unexpended Dec. 31, 1887	\$2,258 42
Appropriation for the financial year 1888-89	6,500 00
Amount transferred from Income Account	845 86
	<u> </u>
	<u>\$9,103 78</u>

GENERAL ACCOUNT.

Expenditures.

Salary of secretary and clerk	\$3,000 00
Clerical service at office	1,800 00
Printing annual report, etc.	1,495 37
Telephone and messenger service and incidental expenses	642 18
	<u> </u>
<i>Amount carried forward,</i>	\$6,937 50

<i>Amount brought forward,</i>	\$6,987 50	
Coach-hire for Committee of Legisla-		
ture and others	129 00	
Stationery	94 17	
Surveying Muddy River lands . .	89 10	
	<hr/>	\$7,249 77
Balance unexpended Dec. 31, 1888	1,854 01	
	<hr/>	<u>\$9,103 78</u>

PARK NURSERY.

Balance unexpended Dec. 31, 1887	\$1,285 26	
Appropriation for the financial year 1888-89 . .	5,000 00	
Amount transferred from Income Account . .	681 64	
	<hr/>	<u>\$6,966 90</u>

Expenditures.

Labor	\$5,068 75	
Plants	687 67	
Expenses in care of propagating-house and nursery,	181 74	
Balance unexpended Dec. 31, 1888	1,028 74	
	<hr/>	<u>\$6,966 90</u>

APPROPRIATION FOR MAINTENANCE.

Balance unexpended Dec. 31, 1887	\$4,472 18	
Appropriation for the financial year 1888-89 . .	20,000 00	
	<hr/>	<u>\$24,472 18</u>

Expenditures.

Paid on account of Franklin Park	\$8,835 51	
Paid on account of Parkway	4,366 04	
Paid on account of Marine Park	3,568 11	
Paid on account of Arnold Arboretum	3,147 62	
Paid on account of Charles River Embankment . .	1,972 82	
Balance merging end of financial year	84 56	
Balance unexpended Dec. 31, 1888	2,547 52	
	<hr/>	<u>\$24,472 18</u>

INCOME.

Receipts.

Balance remaining Dec. 31, 1887	\$4,153 61	
Received from premium on loan	20,385 00	
Received from rents and sale of buildings, grass, and wood	3,950 06	
	<u> </u>	\$28,488 67

Payments.

Premium on loan held by City Treasurer . .	\$20,385 00	
Transferred to Park Nursery	681 64	
Transferred to Park Department	345 36	
Balance remaining Dec. 31, 1888	7,076 67	
	<u> </u>	\$28,488 67

PUBLIC PARK LANDS.

Balance unexpended Dec. 31, 1887	\$56,687 83
	<u> </u>

Expenditures.

Paid on account of Franklin Park	\$9,028 57	
Balance unexpended Dec. 31, 1888	47,659 26	
	<u> </u>	\$56,687 83

PUBLIC PARK CONSTRUCTION.

Balance unexpended Dec. 31, 1887	\$85,896 59	
Public Park Construction Loan, issued in 1888 .	500,000 00	
	<u> </u>	\$585,896 59

Expenditures.

Paid on account of Franklin Park	\$244,887 22	
Paid on account of Parkway	177,348 69	
Paid on account of Marine Park	121,060 84	
Paid on account of Charles River Embankment .	37,415 95	
Paid on account of Wood Island Park	2,779 79	
Paid on account of Arnold Arboretum	547 47	
Balance unexpended Dec. 31, 1888	1,857 13	
	<u> </u>	\$585,896 59

II.

Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Dec. 31, 1888.

PARKWAY CONSTRUCTION.

BACK BAY FENS.

Receipts.

From appropriations for Back Bay	\$1,082,179 39
From loan for Public Park Construction	341,490 94
From appropriations for Park Department	22,868 85
From Income Account	3,449 41
	<u>\$1,449,988 59</u>

Expenditures.

Filling	\$480,968 43
Excavating, grading, loam, and general work	365,836 02
Roadways, sidewalks, gutters, and drainage	163,311 60
Retaining-walls, curb, and fence	107,284 71
Boylston bridge	92,011 43
Beacon entrance bridge (Charlesgate West)	56,675 79
Agassiz bridge	48,893 95
Railroad bridge	39,995 04
Plantations	39,557 62
Plans and designs	22,607 81
Office and general expenses	14,114 92
Machinery, tools, etc.	13,759 61
Surveying	5,472 16
	<u>\$1,449,988 59</u>

MUDDY RIVER.

Receipts.

From appropriations for Muddy River Improvement	<u>\$4,000 00</u>
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Expenditures.

Surveys, plans, and designs	<u>\$4,000 00</u>
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III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Dec. 31,
1888.*

PUBLIC PARK CONSTRUCTION AND MAINTENANCE.

Receipts.

Public Park Loan for lands, less balances merged	\$2,883,791 73	
Appropriations, less transfers, merged balances, and betterment expenses	1,571,111 49	
Public Park Construction Loan	1,000,000 00	
Income appropriated to maintenance	55,934 69	
	<u> </u>	<u>\$5,510,837 91</u>

Disbursements.

Parkway construction	\$1,453,988 59	
Franklin Park land	1,423,866 99	
Parkway land	629,086 47	
Franklin Park construction	430,155 63	
Charles River Embankment land	870,886 45	
Marine Park land	232,972 57	
Charles River Embankment construction	227,584 62	
Marine Park construction	182,948 74	
Arnold Arboretum construction	94,199 61	
Arnold Arboretum land	79,932 71	
Wood Island Park construction	66,470 40	
Wood Island Park land	50,000 00	
General account	45,900 86	
Franklin Park maintenance	86,909 56	
Park Nursery	22,920 14	
Arnold Arboretum maintenance	9,742 79	
Marine Park maintenance	9,172 98	
Charles River Embankment maintenance	8,360 47	
Parkway maintenance	8,278 94	
Wood Island Park maintenance	49 83	
Balance unexpended Dec. 31, 1888	<u>127,410 61</u>	<u>\$5,510,837 91</u>

PUBLIC PARK DEBT AND SINKING FUND.

Receipts.

Appropriations for interest on debt . . .	\$623,554 47	
Appropriations for Sinking Fund . . .	860,987 00	
Received from betterments, less refunded . .	810,130 75	
Interest on bank deposits and investments . .	136,702 41	
Income applied to the payment of debt . . .	94,000 00	
Income paid into Sinking Fund . . .	60,958 61	
From Park appropriations for Betterment expenses,	9,677 62	
Unexpended balances of loans for Park lands paid		
into Sinking Fund	180 84	
	<hr/>	\$1,596,191 70

Disbursements.

Interest on Public Park debt	\$623,554 47	
Debt paid by Sinking Fund	450,000 00	
Public Park Sinking Fund	404,914 90	
Debt cancelled by revenue and betterments . .	99,000 00	
Betterment expenses	9,677 62	
Betterments held under protest	9,044 71	
	<hr/>	\$1,596,191 70

DEBT STATEMENT.

The Public Park Debt, Dec. 31, 1888, to be paid as it becomes due from the Resources of the Public Park Sinking Fund.

West Roxbury Park, 4% Loan, due Jan. 1, 1913 .	\$233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913 .	60,000 00
East Boston Park, 4% Loan, due Jan. 1, 1913 .	50,000 00
West Roxbury Park, 4% Loan, due April 1, 1913 .	800,000 00
Charles River Embankment, 4% Loan, due April 1, 1913	285,000 00
City Point Park, 4% Loan, due April 1, 1913 . .	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	119,000 00
West Roxbury Park, 4% Loan, due Jan. 1, 1914 .	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
Charles River Embankment, 3½% Loan, due Oct. 1, 1915	16,000 00
<i>Amount carried forward,</i>	<hr/> \$1,847,000 00

<i>Amount brought forward,</i>	\$1,847,000 00
City Point Park, 3½% Loan, due Oct. 1, 1915	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916	20,000 00
Charles River Embankment, 3½% Loan, due Oct. 1, 1916	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917	400,000 00
Public Park Construction, 3½% Loan, due Jan. 1, 1937,	500,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1918,	450,000 00
Public Park Construction, 4% Loan, due April 1, 1918	5,000 00
Public Park Construction, 4% Loan, due July 1, 1918	5,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	40,000 00
Total Debt	\$3,835,000 00
Less the means in the Sinking Fund, and in hands of City	
Treasurer, for paying the same, Dec. 31, 1888	413,959 61
Debt, less means for paying	<u>\$2,921,040 39</u>

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Dec. 31, 1888, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

West Roxbury Park, 4% Loan, due Jan. 1, 1918	\$100,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00
East Boston Park, 4% Loan, due Jan 1, 1913	50,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	19,000 00
Cochituate Water, 4% Loan, due April 1, 1917	25,000 00
Cochituate Water, 3% Loan, due April 1, 1917	25,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918,	23,500 00
Total investments	\$302,500 00
Cash	102,414 90
Total resources	<u>\$404,914 90</u>

PARK CONSTRUCTION.

The following is an account of the operations of the Department during the past year; a more detailed statement by the Engineer will be found in the Appendix:—

Wood Island Park.—The only work undertaken was the completion of the bridge over the tracks of the Boston, Revere Beach & Lynn Railroad, and grading the approaches, which has been done, and provides a safe entrance to the park lands.

Marine Park.—The iron pier has been completed for a length of 1,050 feet. Four additional spans, of 60 feet each, were contracted for in October last, and a plan, one of many that were considered, for the pier-head has been adopted.

A granite curb has been placed on the street line, and a small amount of grading done along the line of the curb.

Charles River Embankment.—The filling and grading have been completed, the areas for planting loamed and enriched with fertilizers, the walks and playgrounds laid out, the foundations for gymnastic apparatus placed, and a railing has been erected along the sea-wall. The fence surrounding the gymnasium ground has also been completed.

The Parkway—Back Bay Fens.—Agassiz bridge and the roads bordering Charlesgate and around the lower basin of the Fens, have been completed and are open to the public. Audubon Road, on the westerly side of the upper basin, has been filled to subgrade, and the slopes and banks of the Fenside for a considerable distance in this basin have been formed, and are receiving the loam preparatory to planting. The foundations of the bridge for carrying the driveway and ride over the open Stony-brook water, which enters the Fens

through the Huntington Entrance, have been partly built by the Sewer Department. The spaces prepared for trees and shrubs last year were planted.

Arnold Arboretum. — No new construction being undertaken, the only work done has been that of maintenance.

Franklin Park. — The Playstead district, with its entrances, the bordering roads, and the Overlook, has been completed and opened to the public. The shelter-house is practically finished, and a flag-staff has been erected. The valley-gate to the Country Park and a part of the park wall on the line of Glen Lane have been partly built, and the lane partially graded for half its length. The circuit drive has been subgraded to the location of the Ellicott arch, which is now being built. The drives and ride through the Wilderness have been laid out and cleared of trees, and much stone has been removed from the Ellicottdale green.

The plans of the system of parks are followed so strictly that it would be superfluous to undertake to detail the future work. There is, however, one thing necessary for the completion of the Back Bay Fens, that is, more land is required to make the westerly outlet of the Fens to Brookline Avenue conform to the width of the Muddy River Improvement. This is necessary for a continuation of the work of construction, and will doubtless be provided for by the order now before the city government authorizing a loan for the purchase of this and other lands.

The suggestions of the Board in its last annual report, that the work of planting the areas reserved for planting in that part of Commonwealth Avenue lying between West Chester Park and Beacon Street be placed in charge of this Department, was adopted by the City Council in an order to

place these areas under the care of the Board. A copy of this order will be found in the Appendix. It would be well, before any planting is attempted, that edgestones should be placed around these areas, no provision for which has been made by the City Council. It is understood that an estimate of the amount required for the work will be made and submitted with the annual estimates.

ADDITIONAL LANDS FOR PARKS AND PARKWAYS.

By Chapter 392 of the Acts of the year 1888, approved May 23, the Legislature authorized the city of Boston to issue bonds to the amount of \$600,000 for the purpose of purchasing or taking such additional lands for its public parks as the Park Commissioners shall deem desirable and necessary, which act will be found in full in the Appendix. On June 11 an order to carry out the above was introduced into the Board of Aldermen, and referred to the Committee on Parks. No action seems to have been taken upon it during the remainder of the year.

The Board, therefore, recommends the adoption of an order in the following form, which has the approval of the Law Department and City Treasurer : —

Ordered, That, for the purpose of purchasing or taking such additional lands for public parks as the Park Commissioners shall deem desirable and necessary, the City Treasurer is hereby authorized to issue negotiable bonds or certificates of indebtedness to the amount of \$600,000, payable in thirty years from their date, and bearing interest at the rate of four per cent. per annum, to be denominated on the face thereof, "The Public Park Loan," and the Park Commissioners are hereby authorized to expend said sum for said purpose.

USES TO WHICH GREEN SWARD MAY BE SUBJECTED.

The attention of the public is particularly called to the report of the Landscape Architects, in which they go over at some length the uses for particular purposes to which the Playstead, and green swards generally, may be subjected without injury to their appearance to the great mass of visitors. They also give the results of the experience in this matter of Park Commissioners of other places, and point out many limitations to such uses necessary for the good of the greater number. They give the lessons taught by the experience of those having charge of the public park at Hartford, Druid Hill Park at Baltimore, Chicago South Park, the Seaside Park at Bridgeport, the Buffalo parks, and the parks of the great cities of New York, Brooklyn, Philadelphia, and San Francisco.

The Board views with favor the conclusions of the Landscape Architects, and therefore, to give them emphasis, inserts them here in full.

REPORT OF THE LANDSCAPE ARCHITECTS ON PROVISIONS FOR THE PLAYING OF GAMES.

To the Park Commissioners: —

SIRS, — The turf of the Playstead, Franklin Park, will probably have grown sufficiently firm before the middle of next summer to bear to be a good deal walked upon without injury. It can never come to be so firm that its life may not be trampled out, leaving but bare ground in its place, if walked upon overmuch.

In every city of our Northern States which has a public park, properly so called, great dissatisfaction is constantly expressed by numbers of people with the restrictions which those in charge think it necessary to impose upon the use of its turf. Where this dissatisfaction has the most influence, either in obtaining laxity of rules or a lax enforcement of them, it invariably occurs that much turf is annually killed out; that a large expense is incurred for patchwork renewals of it, and that the value of the park as a place of refreshing scenery is greatly injured.

Practically there are two views taken of the purpose which commissioners should have in view in determining their course. In one the chief value of a park is assumed to be in the facilities it provides for physical exercise. Under this view, turf is recognized as a kind of pavement, pleasanter to walk upon than other kinds of pavement, much pleasanter to run, leap, skip, or scuffle upon. This being considered the use of turf, the less the manner of its use is restricted or regulated, the better it is assumed the park will serve its purpose. That with a certain amount of use it will become streaked, patched, and shabby, and finally disappear is true. But the same is true of a gravelled walk or a flagged walk, a street pavement or the floor of a house. To restrict the use of these things because use will gradually wear them out and make them streaked, patched, and shabby is thought to be wholly unreasonable. As pavements and floors require repairs, and, from time to time, complete renovation, so it is with turf. That the turf of a park has been worn out by the use made of it is held to be the best possible evidence that it has well filled a public want.

In the other view the chief value of a park is taken to lie

in the opportunities it offers the people of a city to refresh themselves by the contemplation of scenery standing in strong relief to that which they have commonly under view, such relief being due mainly to its broad, quiet, rural character and to the predominance of natural, clean, fresh, and lively verdant features. If a city intends simply to provide commodious places of exercise for its people, it is held that much simpler arrangements for that purpose than those found on parks would be less costly and more effective. Under this view the essential value of turf lies in its effect upon the landscape of the park; to subject it to such use as will give it a streaked, patched, sickly, and shabby character is, by so much, to spoil the park for its distinctive purpose. Therefore, it is argued, the turf of a park should nowhere be subjected to such usage that, through its own vital action, it will not remain in constant fresh, lively, verdant condition.

In deciding whether the Playstead shall be open to use as a playing floor for games of all kinds, at all times, by all who may choose to play them, or in what manner its use shall be limited and regulated, the Commissioners must adopt one of these two views, and must subject themselves to the censure of those who adopt the other. This being the case, the Commissioners will do well to consider what customs in respect to the use of turf will prove to have been desirably established when the population of the city shall have come to be much larger than at present, when the use of the park shall have been better learned than it is at present by the people, and when means of access to the park from a distance shall be much better than they now are.

That in the discussion of this question Boston might benefit by the experience of other cities, inquiries have been made personally and by letter, the more significant returns from which will presently be stated.

It may be observed in advance that provisions for playing games in parks seem generally to have been made at the outset without much effort to estimate the probable results, and that, once established, Commissioners have been slow to incur the enmity of those interested in maintaining them in order to make such changes as they have become convinced would be desirable for the interest of all concerned.

It may also be observed that the condition of turf as affected by regulations for playing upon it in any park is largely dependent on the extent of the park relatively to the population resorting to it; its distance from the centre of that population, its topographical character (more particularly its breadth of flat, meadowy surface), and the suitableness of its soil to sustain turf.

For example, the public park at Hartford is of comparatively small extent; has not much flat surface, and is not far away from the centre of population. A part of it was at an early day allowed to be used with little restriction by base-ball and foot-ball players; but the defacement of the turf which followed; the cost of renewing and maintaining it; injuries to trees and shrubbery, with occasional disorderly proceedings, and the disturbance and discomfort that resulted to the greater number of visitors, at length compelled the Commissioners to refuse the use of any part of it for games. The dissatisfaction of players was soon neutralized by the larger and more satisfactory use of the park made by a much larger body of the public. The President of the Commissioners

now in charge of it writes that if provision is to be made by a city for games, it is his opinion, and that of his associates, that it is much better that it should be made on a separate piece of ground from that of a rural park.

In Druid Hill Park, Baltimore, which is not only larger relatively to the population of the city than that of Hartford, but also much more distant from the centre of population, there has always been a base-ball ground, and it is maintained under strict regulations, with little injury to the park. But two games, however, are allowed to be played upon it at a time, and players are obliged to obtain permits for the use of ground for fixed hours in advance. It is thus generally engaged two weeks ahead, and the players are mostly young men, such as bank clerks, whose business confines them during certain hours, giving them freedom at others, so that they can for these make engagements so far in advance. The playground is kept closely under view by the police, and if disorder occurs is promptly cleared. It does not appear that the school-boys of the city get any use of it, or that their wants are elsewhere provided for. In other parts of this park there are twenty-three lawn-tennis courts; but to prevent excessive wear of the turf in them, only nineteen are allowed to be used the same day. Permits to use them must be obtained in advance, and are refused when applied for by the same players oftener than twice a week.

At the end nearest the city of the Chicago South Park, of which the area is about twice that of Druid Hill, a flat field of prairie soil is prepared for games. It has an area of 100 acres (five times that of the Playstead of Franklin Park). It is *six miles from the centre of the city*, and, naturally, thus far little restriction upon the use of it for base-ball or other

games has been found necessary. But care is taken that the same space is not occupied two days in succession, and the ground used is copiously irrigated at night.

Within the Seaside Park of Bridgeport, which again is comparatively small and near the centre of population, there has from the first been a ball-ground, originally intended for the use of school-boys, but which has been taken possession of by men, almost to the exclusion of the boys. The turf is badly scarred upon it, and the best use of the park is often much disturbed by crowds collecting to watch "match-games." The Superintendent says that in the near future its use must be more strictly regulated, though he fears it will now be difficult to bring about what is desirable in this respect.

The Superintendent of the Buffalo parks writes of one of the ball-grounds under his charge, that its turf has been *obliterated* by the players. Of another area originally designed for a ball-ground, he reports that the damage done to its turf by the games, with the unruly conduct of both the players and the spectators, led the Park Commissioners some years ago to prohibit the playing of base-ball upon it. It is still used for cricket, croquet, and occasionally, by special permission, for foot-ball.

The city of New York, with a thousand acres of park area in use, and three thousand yet unimproved, provides a ball-ground only for its school-boys. For these there is an available space of about fourteen acres in the Central Park. No fixed bases are allowed, nor any usage by which the turf may be evidently marred. Permission to occupy the ground is suspended whenever it is excessively dry or excessively wet. With all these precautions, the turf is at times considerably

injured. There is a smaller meadow in the Central Park which was originally set apart for cricket, afterwards for base-ball, until it became a public offence through the destruction of its turf. It was then broken up, and a new turf having been formed, has since been allowed to be used only for archery and croquet, chiefly by school-girls and young ladies.

The city of Brooklyn provides a special field of forty acres, not within any park, in which base-ball, cricket, and lacrosse are played. In its main rural park, there is a meadow similar in character to that of the Playstead of Franklin Park, in which lawn tennis and croquet are played, base-ball and all games likely to seriously injure the turf being prohibited. Permits for the use of a court must be obtained in advance, and often all the courts are occupied.

Fairmount Park, of Philadelphia, is the largest of all the public parks in the country, being nearly six times larger than Franklin Park. Of its 2,800 acres, a space of about two acres only is appropriated to ball-playing. It has not been found possible to keep this in decent order, and the President of the Park Commission describes it as a constant eyesore. Necessarily very few benefit by it, and public opinion, though accepting ball-playing to this extent as an established custom, would be strongly opposed to the appropriation of additional land to the game. The school-boys of the city seem to have no ball-ground. Its base-ball clubs provide themselves with grounds at various points in the suburbs. Tennis and croquet are largely played in the park. The use of chalk or lime for marking out the courts is not allowed; tapes supplied by the players are substituted.

The Commissioners evidently regret that the playing of base-ball should ever have been permitted in the park, but the custom being established, are satisfied, for the present, to keep it within the limits stated.

The Commissioners of Golden Gate Park, San Francisco, which is twice as large as Franklin Park, state that they have been much pressed, as their predecessors had been, to provide upon it a public ball-ground free to all; but it is their opinion that if the city is to assume such a duty it would be better to take a field for it outside of the park. A ball-ground within it would be a serious injury to the park for its more important purposes, and would add greatly to the cost of its maintenance. The street-railways of the city have leased a body of turfless land and graded, gravelled, and otherwise fitted it for match games between clubs. A charge of a quarter of a dollar is made for admittance to it, and it is largely used, with great profit to the companies. Upon the park two playgrounds have been lately prepared for school children under twelve years of age; one to be used chiefly by girls as a field for tennis and croquet, the other by boys for base-ball and foot-ball. In both, the ground to be played upon is gravelled, it being considered out of the question to keep turf in good order, even when to be used only by children. Near these playgrounds there are, in fact, several acres of fine level turf, but the use of it for games has never been allowed. Tennis and croquet are nowhere played on turf in California. The best courts have a surface of asphaltic concrete, such as is often used for railway platforms.

A smaller part of Franklin Park has the flatness of surface required for ball-grounds than of most of the parks that have been mentioned. Its soil is thinner, more stony, and less adapted to sustain turf than that of most of them.

We think that the Commissioners should aim to prevent the turf of the Playstead from being so injured that it would be an eyesore to all using the park. We think that the use of it by school-boys on holidays for the playing of games in a school-boy way (not in imitation of the hired players of the public exhibition grounds) would not prevent its proper preservation. We think that the free strolling over it by the public under ordinary circumstances when it is not given up to the boys would not prevent its proper preservation. We think that until other ground has been provided no harm will come from the playing of tennis and croquet or the practise of archery upon it.

To keep the Playstead in good condition for these uses and also pleasant to look upon, it should be open to no other uses except upon special order of the Board upon rare public occasions.

Respectfully, .

F. L. & J. C. OLMSTED,
Landscape Architects Advisory.

Boston, Dec. 31, 1888.

VISIT OF THE CITY COUNCIL.

The Board having completed the circuit drive and walks of the lower basin of the Back Bay Fens and of the Playstead District of Franklin Park, before opening the grounds to the public, extended invitations to the City Government, the Heads of the Departments, past Commissioners of Parks, and others to a visit of inspection. This occurred on October 2, 1888. The invitation was accepted, and a large number attended. The day proved a fine one, and there were on all hands expressions of satisfaction at the progress made and character of the work. The views, as the visitors entered the grounds from Walnut Street and from the Playstead Overlook, were agreeable surprises to all.

BOSTON HARBOR ISLANDS.

In the last annual report the Board referred at considerable length to the project of reforesting the harbor islands, its attention to the matter having been directed by a communication from the Boston Memorial Association, which, together with a report upon the subject by the Landscape Architect, will be found in that report.

The Board repeats its recommendations therein contained, and presents a plan whereby a beginning may be made in this important work.

The city owns the Great Brewster, an island at the entrance of the harbor, just inside of Boston Light, and exposed to all the winds and storms of the coast.

This island was purchased by the city to control it for the benefit of the harbor, — as is understood by the Board, —

and the United States has built a heavy sea-wall about its most exposed shores to prevent its further washing away. If trees can be made to grow here, it will be an extreme test of the feasibility of the undertaking. It is now leased for the sum of one hundred dollars a year to the Chairman of the Board of Park Commissioners, who, if this plan meets with the approval of the City Council, is willing to give up his lease of the island in order that the scheme of reforesting the islands of the harbor may be started on a sure basis.

For the purpose of this trial, and for supplying the occupants of other islands — and also headlands — with suitable trees, an appropriation of five thousand dollars is desirable.

Preparations for procuring the trees should be commenced sometime in advance of their transplanting to the islands.

The Board, however, is not willing that, by the taking of the Great Brewster, the plan so exhaustively set forth in last year's report should be abandoned.

Respectfully submitted,

BENJAMIN DEAN,
PATRICK MAGUIRE,
JOHN F. ANDREW,

Commissioners.

Boston, Jan. 25, 1889.

Since the adoption of the report, the Commissioners have had placed in their hands a paper read by Frederick Law Olmsted before the New England Club, which is thought of sufficient interest to find a place in the appendix to this report.

APPENDIX.

APPENDIX.

CITY ENGINEER'S REPORT.

OFFICE OF CITY ENGINEER,

CITY HALL, BOSTON, Jan. 25, 1889.

HON. BENJAMIN DEAN, *Chairman Board of Park Commissioners*: —

SIR, — I herewith submit the following report of work done and of the matters of interest in connection with the work placed under my direction by your Board. The work being continued under the immediate charge of Assistant Engineer E. W. HOWE: —

THE PARKWAY — BACK BAY FENS.

Excavation of Waterway. — In the spring, when the ice left the basin, the work of removing the earth dams across the channel at Agassiz Bridge and filling in the old channel across the Agassiz Road was begun. This was completed early in July.

During the remainder of the season the dredger has been employed in completing portions of the channel which had previously been partially excavated, the completion of the new channel under Agassiz Bridge making it possible to empty the southerly part of the basin, thus discovering a number of places which were not down to grade, and also showing a considerable deposit from the overflow of Stony Brook. The dredging has been carried on at a considerable disadvantage, as a large part of the material had to be unloaded from the scows by wheelbarrows, all the places where it could be dumped directly from the scows having already been filled.

Grading of Marsh. — This work has been nearly completed, there being now about 19 acres of finished surface between grades 8 and 9, less than one acre remaining to be done.

Drainage. — Drains have been built in Charlesgate East, Charlesgate West, and Agassiz Road. The drains in Charlesgate East discharge into the common sewer, and other drains discharge as described in the report for 1887.

Roadways, Walks, and Rides. — April 9, a contract was made with the B. & A. R.R. Co. for delivering gravel. Most of this was used for completing the grading of Agassiz Road and of Audubon Road from Agassiz Road to its junction with the Fenway, the balance being deposited on the southerly part of the Fenway. This work was completed August 9, and there was delivered 47,745 cubic yards of gravel, at \$0.57 per cubic yard.

On February 28 a contract was made with Albert A. and James O. Libby for furnishing curbstone for that portion of the Parkway between Beacon Street and the Boston & Albany Railroad. There was delivered $8,407\frac{7}{8}$ linear feet of curbstone, at \$1.59 per linear foot.

A contract was made with John Shields for furnishing paving-blocks, under which he delivered 60,518 blocks, at \$44.37 per M.

The roadways and walks on the Parkway north of and including Agassiz Road left incompletd last season have been graded and macadamized in the same manner as was described in the last annual report, the curbstones have been set and the gutters paved, so that this portion of the Parkway is entirely completed, excepting the planting of trees upon the borders of a portion of the drives, and the providing of some system of lighting.

In addition to the above, about 1,700 linear feet of Audubon Road, southerly from Agassiz Road, has been subgraded in readiness for setting the curbstone and macadamizing the roadway.

Agassiz Bridge. — This bridge, which was fully described in the last annual report, was completed in February with the exception

of the parapet wall, which it is thought best to leave until the back-filling has settled.

Grading of Slopes, Loaming, and Planting. — This work has been continued during the season, and there is a large area ready to be planted in the spring. The slopes between Agassiz and Audubon Roads and the basin, the large island in the southerly portion of the basin, and the mounds on the marsh near by, are ready for planting, and a large amount of grading has also been done on the slope between the Fenway and the basin.

On June 13 a contract was made with the Metropolitan Construction Company, under which they have deposited on the slopes of the Fenway 8,538 cubic yards of earth, at \$0.40 per cubic yard.

The Sewer Department has also deposited a large amount of earth, excavated from the new channel of Stony Brook, on the Fenway and adjoining slopes.

The following table, giving some of the items of work completed on the Parkway at Back Bay to date, may be of interest. A great deal of unfinished work which has been done on other portions of the Parkway, much of which is very near completion, is not contained in the table : —

				Percentage of whole amount to be done.
Channel excavated	.	.	.	1,148,000 sq. ft. 82
Shore completed	.	.	.	23,000 lin. ft. 90
Marsh “	.	.	.	817,000 sq. ft. 95
Driveway “	.	.	.	41,000 sq. yds. 47
Walks “	.	.	.	16,000 sq. yds. 30
Ride “	.	.	.	8,000 sq. yds. 23
Curbing “	.	.	.	18,900 lin. ft. 50
Gutters “	.	.	.	9,200 sq. yds. 45
Area covered with loam completed,				701,000 sq. ft. 51
Area planted			“	512,000 sq. ft. 37

In addition to the above, there have been built 4,663 linear feet of drains, 6 manholes, and 55 catch-basins.

ARNOLD ARBORETUM.

The work of construction done during the past year has been confined to the planting of the slopes of the driveway to the top of Bussey Hill, where they are included within the city's reservation.

Some slight repairs have also been made on the drives and walks.

FRANKLIN PARK.

Drives and Walks. — The Glen, Pierpont, and Playstead Roads, together with a section of the Greeting to connect the two latter, and the entrances from Walnut Avenue, have been completed.

The walks adjoining these roads have also been completed with the exception of a short length in the rear of the Shelter building. Glen Lane for a length of about 2,400 feet and the circuit drive in the Country Park for a length of about 3,000 feet have been graded.

On March 24 a contract was made with S. & R. J. Lombard for furnishing paving-blocks, and 111,106 blocks were delivered, at \$48 per M.

The Overlook. — The wall has been entirely completed and the face of it planted. Seats have been constructed of stone and covered with oak slats. The walk and the steps leading from the driveway have been finished, and four rustic drinking-fountains have been built of the stone found upon the park.

The Shelter. — This building is nearly completed, the excavation, the foundations, the masonry side-walls, the chimneys above the roof, and the outside steps having been constructed by the park force, while the carpenter-work has been done by contract, under the direction of the City Architect. All the exposed masonry is of field stone, laid so as to show weather-worn and

mossy-faces. The remainder of the building is covered with rived cypress shingles.

Playstead Green. — The grass-seed sown in the fall of 1887 has produced a fine turf, the care of which has required considerable labor, the grass having been kept cut short by means of lawn-mowers.

A flagstaff, consisting of a single stick 105 feet in length, has been erected. It stands upon a ledge, in about the centre of the green, and rests upon a cast-iron foot bolted to the ledge, the staff being supported laterally by three wire-rope guys attached to anchor-bolts set in the rock.

Gateways. — At the entrance to the Country Park, from the Playstead district, it is designed to have gates for closing this part of the park at night. Plans for these gateways were prepared by Messrs. Walker & Best, architects. There will be four wrought-iron gates, two for the driveway and one for each of the footpath entrances, which will run upon tracks laid across the driveway and walks. When the Country Park is open, these gates will be run into chambers of rustic masonry, which have been built for that purpose. Adjoining the gateway, about 230 feet of retaining-wall has been built on the line of Glen Lane.

Ellicott Arch. — The circuit drive will cross a footpath leading from the entrance at the junction of Williams Street with Forest Hills Street upon an arch of masonry. Work upon this arch was begun in midsummer, but was discontinued when the force was needed on other work.

The work has recently been resumed, and the arch will be completed early next season.

The following table gives some of the items of the work which has been completed to date. As is the case in the statement given in reference to The Parkway, a large amount of work has been done which cannot be stated in figures, such as clearing of grounds of trees and rocks, grading of grounds which have not as yet been finished, etc. : —

Driveways	27,225 sq. yds.
Walks	20,000 “
Gutters paved	4,923 “
6-in. water-pipe laid	8,000 lin. ft.
Hydrants	3
Drinking-fountains	4
2-ft. brick drain	519 lin. ft.
18-in. pipe “	1,233 “
15-in. “ “	983 “
12-in. “ “	805 “
10-in. “ “	989 “
8-in. “ “	3,087 “
4-in. agricultural tile drain	900 “
8-in. “ “ “	1,200 “
2-in. “ “ “	9,500 “
Total drains	—— 19,140 lin. ft.
Manholes	13
Catch-basins and inlets	50

The area of ground graded and planted or seeded, and not included in above table, is 34 acres.

MARINE PARK.

Iron Pier. — The building of the iron pier was suspended, on account of unfavorable weather, from January 15 to February 20, from which latter date the work was continued till November 7, when the work called for under the contract of July 11, 1887, was completed.

The connection between the temporary wooden pier and the iron pier was completed October 13, and the iron railings and lamp-posts were finished and in place December 8.

The completed portion of the iron pier was opened to the public on December 2.

The total length of the seventeen spans of pier now completed is 1,049.75 feet, and the four additional spans contracted for October 20 will increase the length to 1,296.75 feet.

Curbstone. — On April 18 a contract was made with the Lanesville Granite Company for furnishing an ornamental curb to be set on the line between the park and Q Street. This contract was completed October 17, and there were furnished 1,390½ lin. ft. of curbstone, at \$2.75 per foot. The stones have been set and a small amount of grading done back of them.

In August a new and larger service-pipe was laid to connect the refectory building with the main water-pipe, the old pipe not having sufficient capacity to supply the increased demand for water due to the putting in of additional fixtures.

WOOD ISLAND PARK.

The only work done upon this park during the year has been the construction of the iron bridge over the Boston, Revere Beach, & Lynn Railroad. This was completed, with the exception of the railing, on September 25, and the railing was completed in November. The approaches to the bridge have been graded.

CHARLES RIVER EMBANKMENT.

In February the old buildings adjoining the West Boston Bridge were removed, and in April the Paving Department completed the removal of their buildings. The work of grading the park grounds has been completed, the areas for planting have been covered with loam and fertilized, and the drainage has been completed. An iron railing has been erected on the Embankment wall with lamp-posts about 50 feet apart, and gas-pipes connecting with the mains of the Boston Gas Light Company have been laid to these lamp-posts. An iron fence has been erected around the gymnastic grounds at the northerly end of the Embankment, and these

grounds have been prepared for their intended use with the exception of the erection of some apparatus.

The filling of the Embankment has been extended under the West Boston Bridge by a sloping bank protected by rip-rap. This was done to prevent the thrust of the filling from moving the bridge. The gravel used was dredged from Charles River. The work was done by John T. Scully, at a cost of \$2,598.77, and was completed in October.

Gravel walks have been made wherever called for by the plans. It is not thought best to construct expensive walks at present, as the ground has been but recently filled and is liable to considerable settlement.

The following table gives a statement of the work completed : —
Area of ground covered with loam in readiness

for planting	262,000 sq. ft.
Area of walks completed	109,000 sq. ft.
Area of gymnastic ground	65,000 sq. ft.
Drains laid	1,220 lin. ft.
Manholes built	10
Catch-basins	17
Iron railing on sea-wall	2,250 lin. ft.
Lamp-posts “ “	52
Iron fence around gymnastic ground	1,184 lin. ft.

MUDDY RIVER AND STONY BROOK COVERED CHANNELS.

Examinations have been made of these channels from time to time, and portions of each where the foundation is in moving mud will have to be rebuilt or strengthened by inside bracing. A portion of the Muddy River conduit is temporarily strengthened, as described in last year's report.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

STATUTES OF THE COMMONWEALTH AND ORDERS
OF THE CITY OF BOSTON CONCERNING PUBLIC
PARKS AND RELATED MATTERS.

COMMONWEALTH OF MASSACHUSETTS

[CHAP. 876.]

In the Year One Thousand Eight Hundred and Eighty-eight.

AN ACT TO AUTHORIZE THE CITY OF BOSTON TO REFUND A
PORTION OF THE MONEY PAID AS BETTERMENTS
FOR THE MARINE PARK IN SAID CITY.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows: —*

SECTION 1. The city of Boston may, by concurrent vote of the city council, at any time within two years from the passage of this act, refund any portion, not exceeding ninety per centum, of the sums assessed for betterments on account of the marine park in said city and paid, in whole or in part, into the treasury of said city prior to the fourth day of June in the year one thousand eight hundred and eighty-seven; and any sums so refunded shall be paid by the city treasurer to the persons to whom said betterments were assessed or their legal representatives.

SECT. 2. This act shall take effect upon its passage.

(Approved May 18, 1888.)

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 392.]

In the Year One Thousand Eight Hundred and Eighty-eight.

AN ACT TO ENABLE THE CITY OF BOSTON, FOR THE PURPOSE
OF OBTAINING LANDS FOR ITS PUBLIC PARKS, TO
INCUR INDEBTEDNESS OUTSIDE OF THE
LIMIT FIXED BY LAW.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The city of Boston, for the purpose of purchasing or taking such additional lands for its public parks as the park commissioners of said city shall deem desirable and necessary, and paying therefor, may incur indebtedness, and may from time to time issue bonds, notes, or scrip therefor to an amount not exceeding six hundred thousand dollars, outside of the limit of indebtedness fixed by law for said city, payable in periods not exceeding fifty years from the date of issue, and bearing interest at rates not exceeding four per cent. per annum, but the provisions of chapter twenty-nine of the Public Statutes, and of chapter one hundred and twenty-nine of the acts of the year eighteen hundred and eighty-four, shall in all other respects apply to the issue of said bonds, notes, and scrip, and to the establishment of a sinking-fund for the payment thereof at maturity.

SECTION 2. This act shall take effect upon its passage.

(Approved, May 23, 1888.)

CITY OF BOSTON,
IN BOARD OF ALDERMEN, March 5, 1888.

Ordered, That the areas reserved for the planting of trees, shrubs, grass, etc., in that part of Commonwealth Avenue lying between West Chester Park and Beacon Street, be placed in charge of the Board of Park Commissioners.

Passed. Sent down for concurrence. In Common Council, March 15, concurred. Approved by the Mayor, March 20, 1888.

PARK ORDINANCES.

IN BOARD OF PARK COMMISSIONERS, Aug. 20, 1886.

Voted, That the following rules, under the title of Ordinances, be adopted for the use and government of the Public Parks. *Provided, however*, that said rules shall not invalidate any pending prosecution or procedure, or any liability of any person for breach of any previous rule.

The Board of Park Commissioners of the City of Boston, by virtue of its authority to make rules for the use and government of the Public Parks of said city, and for breaches of such rules to affix penalties, hereby ordains that within the Public Parks, except with the prior consent of the Board, it is forbidden: —

1. To cut, break, injure, deface, defile, or ill use any building, fence, or other construction, or any tree, bush, plant, or turf, or any other thing or property.
2. To have possession of any freshly-plucked tree, bush, or plant, or portion thereof.
3. To throw stones or other missiles; to discharge or carry fire-arms, except by members of the Police Force in the discharge of their duties; to discharge or carry fire-crackers, torpedoes, or

fire-works; to make fires; to play musical instruments; to have any intoxicating beverages; to sell, offer, or expose for sale, any goods or wares; to post or display signs, placards, flags, or advertising devices; to solicit subscriptions or contributions; to play games of chance, or have possession of instruments of gambling; to make orations, harangues, or loud outcries; to enter into political canvassing of any kind; to utter profane, threatening, abusive, or indecent language, or to do any obscene or indecent act; to bathe or fish; to solicit the acquaintance of, or follow, or otherwise annoy other visitors.

4. To allow cattle, horses, or other animals to pass over or stray upon the Park lands; provided that this shall not apply to those used for pleasure travel when on the ways or places provided and open for the purpose, or to dogs when closely led by a cord or chain not more than six feet long.

5. To drive any wagon, cart, dray, truck, or other vehicle for carrying merchandise or other articles, or any hearse or funeral procession.

6. To move in military or civic parades, drills, or processions.

7. To play ball or other games or sports, except on grounds provided therefor.

8. To engage in conversation with men at work, or to obstruct, hinder, or embarrass their movements.

9. To refuse to obey the orders or requests of either of the Commissioners, or of the Park Police, or other agents of the Commissioners, and to refuse to assist them when required.

Any person wilfully doing either of the things above forbidden shall be punished by fine not exceeding twenty dollars.

Voted, That compliance with the foregoing regulations is a condition of the use of these premises.

Voted, That notices in the following form be posted on the Public Parks in addition to the foregoing ordinances and vote:—

Pending operations for forming a Public Park on this property,

it is open to be used by all persons, in an orderly way, but with due regard to the Ordinances and Regulations hereinafter recited.

All persons entering upon the Park property are hereby warned to avoid newly prepared ground and localities where works are in progress, and to promptly regard all warnings and directions of officers or other agents of the Commissioners.

IN BOARD OF PARK COMMISSIONERS, Sept. 14, 1888.

Voted, That the ordinances or rules adopted August 20, 1886, for the use and government of the Public Parks are hereby amended so far as they relate to Franklin Park and the Arnold Arboretum, by the addition of the following rules with the numbers indicated: —

6. To drive a horse or horses at a rate faster than eight miles an hour.

7. To ride a horse at a rate faster than ten miles an hour.

8. To drive or ride any animal not well broken and under perfect control of the driver.

9. To walk on the drives or rides except to cross them at the proper crossing-places.

Voted, That the ordinances or rules adopted August 20, 1886, for the use and government of the Public Parks are hereby amended so far as they relate to the Back Bay Fens, by the addition of the following rules with the numbers indicated: —

6. To drive a horse or horses at a rate faster than eight miles an hour.

7. To ride a horse at a rate faster than ten miles an hour.

8. To drive or ride any animal not well broken and under perfect control of the driver.

9. To walk on the drives or rides or on any part of the property except the prepared walks or except to cross the drives or rides at the proper crossing-places.

REMARKS ABOUT A DIFFICULTY PECULIAR TO THE
PARK DEPARTMENT OF CITY GOVERNMENTS,
ADDRESSED, UPON INVITATION, TO THE NEW
ENGLAND CLUB, 26TH JANUARY, 1889.

BY FREDERICK LAW OLNSTED.

NOTE. — The Park Commissioners had been invited to address the Club, and, at the request of its president, the following paper was prepared, with the object of presenting the affairs of the Department from another point of view from theirs. It is printed because the condensed reports of it which have been published, although correct as far as they go, do not present the leading purpose of the writer, which was to further the growth of a sound public opinion.

Having had better opportunities than the Commissioners who have addressed you for studying the history of the Park Departments of other cities, I propose to say how the affairs of the Boston Park Department look *from a comparative point of view*.

In all cities the business of a Park Department has to be carried on under a difficulty peculiar to itself. That I may suggest its nature I will first remind you that Park Departments are a new feature of city governments, and that before any of them were formed, nearly every city possessed public grounds, and an organization for taking care of them. In New York and many other places they were called parks, and the committees of the city council supervising them were called park committees. When the modern Park Departments were formed, they did not, as a rule, supersede these older arrangements. For example, here in Boston, before there was any Park Department you had the Common and the Public Garden, and a number of small grounds, some of which were designated parks; you had Commonwealth and West Chester Park avenues, with their strips of greensward and trees and beds. Moreover, you had Chestnut Hill, with its fine shade trees and its well-made pleasure roads and walks, passing between and

around two broad artificial sheets of water, the whole more than 200 acres in extent. All these grounds remain and the business of taking care of them continues to be carried on as before. It may be questioned if any business of the city government is carried on more skilfully or more satisfactorily to the people.

Why, then, should another department, under the name of the Park Department, have been added to the already somewhat cumbersome machinery of the city government?

Carpers cannot say that it was to provide fat places for men to whom successful politicians had become indebted. The Park Commissioners get no salaries.

What then? There is but one way of avoiding the conclusion that all our cities have been doing a senseless thing in instituting these Park Departments. It is to assume that they are designed to supply a want not had in view under the old arrangements.

But, adopting this assumption, the question occurs, where is the distinctive duty in this respect of the Park Department defined? The Act establishing the Boston department states that its purpose shall be "to locate, lay out, improve, govern, and regulate one or more public parks." But this does not define a purpose distinct from that before provided for, nor is the distinctive business of the department anywhere, by any statute or ordinance, title or preamble, so defined that it can be clearly separated from the purpose of such institutions as the Public Garden and the Common, "Chester Park," "Union Park," and "Washington Park."

It is much the same elsewhere. In one of our great cities a site within a park was, some time ago, appropriated to a certain public purpose, and park funds voted to further advance that purpose. Commenting upon this action it was observed by a distinguished citizen, a lawyer and a law-maker, entirely in sympathy with the purpose, that if the action of the Commissioners in the matter did not go beyond their legal powers, then it must lie within their legal powers to set buildings, designed to promote any object which it appeared desirable to them should be furthered, at

any point within the park. It would be competent for them to construct roads leading to these buildings. In fact they might occupy the entire ground with streets and buildings.

It is not necessary to my present purpose that I should undertake what the law-givers and courts have so far failed to undertake, — that is to say, to define the distinctive purpose of a Park Department; my aim is to show you where the difficulty lies, not to remove it.

The difficulty lies in the fact that the purpose to be served by a Park Department, not having been at all precisely defined, or by any form of long and well-known usage established, Park Commissioners cannot well be held — cannot well hold themselves — to a strict account for serving that purpose rather than serving numerous other purposes, such as even good citizens may think it right to urge upon them.

If a Sewer Department in any of our cities should set about building much-needed school-houses, or a Fire Department aim to supply the want of a Public Library, the work would not proceed far without a question being raised as to the authority for these operations. But when land has been taken, and money appropriated for a park, there is no clear popular working understanding, or active public opinion, as to the limits of purpose within which it is to be used. None, certainly, making an exact distinction between this purpose and that of the committees of the city council supervising what are classed as “the small parks.”

If the business of a Park Department is tolerably well directed, there comes, in time, a result, by familiarity with which public opinion becomes gradually educated to the point of rejoicing in work that really serves the specific purpose of the department, and of condemning its use, in any form, of public money or public property for purposes not peculiarly under its charge. In New York, for instance, after thirty years, it seems now to be approaching that point.

But, in the earlier stages of their works, the difficulty of strictly

pursuing the distinctive objects for which Park Departments have been wanted, is apt to appear in many forms. I will refer particularly to two only : —

First, the results of any proper work of a Park Department are not apt to be fully reached for a long time after the work has been mainly done. Often the early results are decidedly unpleasing, as they have been, and in large parts, after many years, still are, in the work of your department, of the Back Bay Fens. The best intended results may not ripen during the lifetime of those to be chiefly credited with them. In most cases they never invite admiration as achievements. The best results of the best, most difficult, and most costly operations are likely to be accepted by the public as results of nature's work, almost exclusively. The aim of the department should be nearly everywhere, not to exhibit, but to conceal, the art it has used.

Under these circumstances, because of the vague understanding that is generally had of the purposes of the department, the value of the work it is doing is often, even generally, assumed to be found in results that are but provisional, temporary, and transitory. Even when this is not the case the public attitude toward it is apt to be an attitude of impatience, and it requires a more than usually stern sense of duty, and more than ordinary resolution and determination, both in the Commissioners and in those whom they employ in the immediate direction of operations, not to make large sacrifices to assuage this impatience.

Now, if I am asked to tell you from my comparative point of view how the business of the Park Department of Boston has fared with reference to this branch of the difficulty, I am glad that I can say that it has fared better than that of any other Park Department in the United States. I am moved to say so, more particularly in view of the patience of the public with respect to a costly work of an exceptionally tedious and unpromising character. I mean that of the Fens. In no other work of which I have knowledge has the purpose of a Park Department

been so liable to be misunderstood, yet in hardly any other has the original controlling purpose been pursued so steadily, or with as little waste because of a desire to realize superficial and temporarily pleasing and immediately popular results.

Second, the worst thing that can happen to the business of a Park Department is that the lasting interest of the public in this particular division of its business shall be sacrificed, in order to further what may be assumed to be more important public objects. Objects, for example, that may be assumed to be of statesmanship; with reference to which parties are formed; with reference to which money must be raised, or the equivalent of money in various indirect and easily obfuscated forms of "patronage." You will see how the vague character of the charge given to the Park Department leaves an unusually wide door open for sacrifices of its proper purpose in this respect. You will see how such sacrifices can be made more easily in a Park Department than any other, for the reason that the motives of it can thus be better kept out of public view; can, for instance, be disguised under cover of an intention to remedy some assumed error of judgment or dishonest purpose on the part of predecessors of a different political camp. You will see that, there being occasion for such an operation, the public may be more easily misled, or, at least, brought to confusion of mind, in respect to the motives of it, than it can be in regard to the motives of any other department of city business. It may be more easily brought to applaud it, because it is always easy in carrying out such an operation to gratify the public's constant impatience to have an early display of pleasing, even if meretricious, results.

How is your department getting on in respect to this branch of the difficulty?

It is a good time to answer this question, because three years ago a political revolution occurred in the Park Commission. Having been a republican it became a unanimously democratic board.

The answer is, that neither under the former republican nor the

present democratic administration has a man been dismissed, or a man been enlisted in any class of employment, with any motive (apparent to me), of serving a party, of rewarding party services, or of punishing failure of party services. I do not believe that a single purchase has been made, or a single contract manipulated in any manner, with any such motives.

And from my comparative point of view I may say that I do not think that there is another Park Department in the country, that at a corresponding period of its work has more successfully escaped the class of dangers that I have been trying to explain.

I do not think that with respect to any other a custom of conducting the work independently both of politics and of motives of temporary expediency has been so nearly established. I do not think that at so early a stage any other park work has come so nearly to be recognized and treated as a work of art.

Upon this conclusion I heartily congratulate your club and all good people of Boston.

ORGANIZATION.

1888.

Board of Commissioners of the Department of Parks.

BENJAMIN DEAN, *Chairman*,
PATRICK MAGUIRE,
JOHN F. ANDREW.

Secretary.

GEORGE F. CLARKE.

Landscape Architects Advisory.

F. L. and J. C. OLMSTED.

Assistant Landscape Gardener.

W. L. FISCHER.

City Engineer.

WILLIAM JACKSON.

Assistant City Engineer.

JOHN E. CHENEY.

Assistant Engineer-in-Charge.

E. W. HOWE.

Purchasing Agent.

O. L. SHAW.

OFFICE OF COMMISSIONERS.

85 and 87 Milk Street, Boston.



City of Boston.

DEPARTMENT OF PARKS.

FIFTEENTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

FOR THE

YEAR 1889.

PRINTED FOR THE DEPARTMENT.

1890.

PRESS OF
ROCKWELL AND CHURCHILL
BOSTON

DEPARTMENT OF PARKS.

REPORT.

To the Honorable the City Council of the City of Boston: —

Section 15 of the Act of 1875, Chapter 185, entitled "An Act for the laying out of Public Parks in or near the City of Boston," requires that the Board of Park Commissioners "shall annually, in the month of January, make to the City Council of Boston a full report of its doings for the preceding year, including a detailed statement of all their receipts and expenditures."

In accordance therewith, the Board has the honor to submit the following report: —

FINANCIAL STATEMENT.

I.

Receipts and Expenditures of the Department for the Year 1889.

THE PARKWAY.

LAND ACCOUNT.

BACK BAY FENS.

Amount transferred from loan for Public Park Lands	.	.	\$11,068 09
			<hr/>
<i>Expenditures.</i>			
Amount paid for land in 1889	.	.	\$11,068 09
			<hr/>

MUDDY RIVER.

Balance unexpended, Dec. 31, 1888	\$65,387 28
<i>Expenditures.</i>	
Amount paid for land in 1889	\$32,027 64
Balance unexpended, Dec. 31, 1889	33,359 64
	<u>\$65,387 28</u>

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park	
Construction	\$98,397 13
Amount transferred from Appropriation for Main-	
tenance	12,256 19
	<u>\$110,653 32</u>

EXPENDITURES FOR CONSTRUCTION.

Excavating, Grading, Loam, and General Work.

Grading : labor and materials,	\$22,881 77
Dredging : labor and mate-	
rials	11,198 38
Superintendence and general	
work	7,456 03
Loam : labor and materials .	6,632 02
Engineering expenses . . .	1,242 54
Fence : labor and materials .	1,040 80
	<u>\$50,451 54</u>

Roadways, Sidewalks, Gutters, and Drainage.

Roadways : labor and mate-	
rials	\$17,136 68
Curbs and walks : labor and	
materials	10,849 70
Gutters : labor and materials,	5,454 68
Drainage : labor and mate-	
rials	2,554 29
	<u>35,995 35</u>

Plantations.

Labor and expenses	7,080 45
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Filling.

Amount paid under contract for filling .	3,415 20
<i>Amount carried forward</i>	<u>\$96,942 54</u>

Amount brought forward. . . . \$96,942 54

Plans and Designs.

F. L. & J. C. Olmsted, Landscape Architects, and expenses . . . 1,085 58

Surveying Muddy River.

A. H. French, topographical survey . . . 310 71

Muddy-River Gate-House.

Labor . . . 58 30

\$98,897 18

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and expenses . . . \$9,416 32

Repairs of Covered Channel

Muddy River and Gate-

House . . . 76 51

Signs and notices . . . 18 00

\$9,510 83

Park Police.

Pay of Park Keepers . . . \$2,461 38

Pay of Sub-Keepers . . . 229 40

Police equipments and sup-

plies . . . 54 58

2,745 36

12,256 19

\$110,658 32

ARNOLD ARBORETUM.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park

Construction . . . \$9,029 41

Amount transferred from Appropriation for Main-

tenance . . . 3,661 64

\$12,691 05

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Expenses of construction, labor, etc. . . \$7,240 65

Culverts: labor and materials . . . 1,609 00

Fuel, supplies, carting, etc. . . 156 92

Engineer's expenses . . . 22 84

\$9,029 41

Amount carried forward . . . \$9,029 41

Amount brought forward, **\$9,029 41**

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers **\$2,016 25**

Care of Grounds and Buildings.

Watchmen, labor, and ex-

penses **\$1,631 39**

Signs and notices **14 00**

1,645 39

3,661 64

\$12,691 05

FRANKLIN PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park

Construction **\$227,442 66**

Amount transferred from Appropriation for Main-

tenance **17,228 22**

\$244,670 88

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Grading roads **\$45,997 23**

Surfacing roads **42,046 56**

Paving blocks **5,600 71**

Paving **3,060 84**

Curbstones **619 20**

\$97,324 54

Clearing and Grading Grounds, Drainage, and General Work.

Drainage **\$22,356 99**

Grading grounds **22,164 10**

Clearing grounds **8,973 55**

Superintendence and general

work **8,112 00**

Engineer's assistants and ex-

penses **7,777 81**

69,384 45

Structures.

Amount paid Creesy & Noyes

under contract for The

Shelter **\$12,329 09**

Amounts carried forward, \$12,329 09 \$166,708 99

Am'ts brought forward, \$12,329 09 \$166,708 99

Plumbing, heating appa-

ratus, furnishing, etc. . 8,107 19

Sheep-fold and sheep . 1,000 35

Flagstaff — Ensigns, etc. . 87 00

21,523 68

Park Wall and Gateways.

Materials, labor, and expenses . . 12,363 27

Ellicott Arch.

Materials, labor, and expenses . . 11,899 83

Plantations.

Labor and expenses . . . 5,020 46

Ellicottdale.

Labor and materials . . . 3,328 64

Plans and Designs.

Landscape architects and expenses . 2,568 49

Water Supply.

Water-pipes and labor . . . 2,109 83

Fountains.

Materials, labor, and expenses . . 1,037 57

Machinery, Tools, and Implements.

Steam-drill and mower . . . 474 10

Playstead Green.

Labor and materials . . . 407 85

\$227,442 66

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers . . \$5,443 73

Pay of Sub-Keepers . . 3,378 55

Equipments and supplies . 425 54

\$9,247 82

Care of Grounds and Buildings.

Labor and expenses . . \$7,936 35

Signs and notices . . 44 05

7,980 40

17,228 22

\$244,670 88

CHARLESBANK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park

Construction \$25,923 04

Amount transferred from Appropriation for Main-

tenance 4,303 35

\$30,226 39

EXPENDITURES FOR CONSTRUCTION.

*Structures.*Amount paid under con-
tract with W. H. Keyes

& Co. for men's building, \$8,628 12

Labor, expenses, furnish-
ing, etc.

1,266 51

\$9,894 63*Gymnastic Grounds, Grading, and General Work.*

General work \$2,217 24

Gymnastic apparatus . 1,802 05

Men's gymnasium grounds:

labor and expenses . 950 11

Women's gymnasium

grounds: labor and ex-

penses 690 81

Engineering expenses . 673 44

Grading, labor . . . 619 85

6,953 50*Plantations.*

Labor 4,309 58

Iron Railing and Fence.

Amount paid P. J. Dinn,

under contract for fence, \$2,568 00

Railing on sea-wall: gas-

piping, and lanterns . 1,173 73

Labor and expenses . 49 00

3,790 73*Water Supply.*

Fountains and labor on water-pipes . 520 28

Walks and Drainage.

Drainage \$345 27

Labor on walks . . . 95 10

440 37Amount carried forward, \$25,909 04

Amount brought forward, \$25,909 04

Machinery, Tools, and Implements.

Roller	14 00	
	<hr/>	\$25,928 04

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers .	\$2,253 75	
Pay of Sub-Keepers .	42 97	
	<hr/>	\$2,296 72

Care of Grounds and Buildings.

Labor and expenses	2,006 68	
	<hr/>	4,803 85
		<hr/>
		\$30,226 89

MARINE PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park

Construction	\$90,796 13
------------------------	-------------

Amount transferred from Appropriation for Main-

tenance	3,660 74	
	<hr/>	\$94,456 87

EXPENDITURES FOR CONSTRUCTION.

Structures.

Amount paid under con-	
tract with Jos. E. White,	
for pier-head.	\$42,644 29
Amount paid under con-	
tract with Shailer and	
Schniglau, for iron pier,	27,569 06
Amount paid under con-	
tract with Builders' Iron	
Foundry, for iron railing,	4,438 15
Inspection and engineer-	
ing expenses	2,355 55
Gas-piping, lanterns, labor,	
etc.	1,594 48
Advertising pier-head con-	
tract	358 68
	<hr/>
	\$78,960 16
	<hr/>
<i>Amount carried forward,</i>	\$78,960 16

Amount brought forward, \$78,960 16

Filling, Grading, and General Work.

Amount paid under con-
tract with Jos. E. White,
for filling \$10,874 15
General work 806 23
Borings and labor on ac-
count filling contract . 162 68
Advertising and printing,
filling contract . . . 126 79
Grading 13 80
 10,983 65

Plans and Designs.

Landscape Architects and expenses . 852 82
 \$90,796 13

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and ex-
penses \$2,612 99
Signs and notices . . . 15 00
 \$2,627 99

Park Police.

Pay of Park Keepers 1,032 75
 8,660 74
 \$94,456 87

WOOD ISLAND PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . \$7,569 98
Amount transferred from Appropriation for Maintenance . . 8 30
 \$7,578 28

EXPENDITURES FOR CONSTRUCTION.

Grading, Loam, and General Work.

Grading: labor and ma-
terials \$6,728 80
Loam 867 50
Superintendence and gen-
eral work 211 65
 \$7,807 95
Amount carried forward,

Amount brought forward, \$7,307 95

Engineering expenses	115 41	
Temporary buildings	99 65	
	<hr/>	\$7,523 01

Plantations.

Labor and expenses	32 67	
------------------------------	-------	--

Plans and Designs.

Landscape Architects and expenses	14 30	
	<hr/>	\$7,569 98

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Signs and notices	3 30	
	<hr/>	\$7,573 28

DEPARTMENT APPROPRIATION.

Balance unexpended Dec. 31, 1888	\$1,854 01	
Appropriation for the financial year 1889-90	7,500 00	
Amount transferred from Income Account	338 27	
	<hr/>	\$9,692 28

GENERAL ACCOUNT.

Expenditures.

Salary of Secretary and clerk	\$3,000 00	
Clerical service at office	1,800 00	
Surveying Muddy River lands	765 33	
Telephone and messenger service and incidental expenses	442 46	
Printing annual report, etc.	409 52	
Stationery	82 08	
Coach-hire	68 00	
	<hr/>	\$6,567 39
Balance unexpended Dec. 31, 1889	3,124 89	
	<hr/>	\$9,692 28

PARK NURSERY.

Balance unexpended Dec. 31, 1888	\$1,028 74	
Appropriation for the financial year 1889-90	6,000 00	
Amount transferred from Income Account	28 74	
	<hr/>	\$7,057 48

Expenditures.

Labor	\$4,916 31	
Plants	344 08	
Expenses in care of propagating-house and nursery,	148 10	
Balance unexpended Dec. 31, 1889	1,648 99	
	<hr/>	\$7,057 48
		<hr/>

APPROPRIATION FOR MAINTENANCE.

Balance unexpended Dec. 31, 1888	\$2,547 52	
Appropriation for the financial year 1889-90 . .	35,000 00	
Amount transferred from Income Account . .	4,201 44	
	<hr/>	\$41,748 96
		<hr/>

Expenditures.

Paid on account of Franklin Park	\$17,228 22	
Paid on account of Parkway	12,256 19	
Paid on account of Charlesbank	4,303 35	
Paid on account of Arnold Arboretum	3,661 64	
Paid on account of Marine Park	3,660 74	
Paid on account of Wood Island Park	3 30	
Balance unexpended Dec. 31, 1889	635 52	
	<hr/>	\$41,748 96
		<hr/>

INCOME.

Receipts.

Balance remaining Dec. 31, 1888	\$7,076 67	
Received from premium on loans	72,230 50	
Received from rents and sale of buildings, grass, and wood	4,528 87	
	<hr/>	\$83,836 04
		<hr/>

Payments.

Premium on loans paid into Public Park Sinking Fund	\$71,230 50	
Transferred to Park Maintenance	4,201 44	
Premium on loans carried to Special Loans Sinking Fund	1,000 00	
Transferred to Park Department	338 27	
Income paid into Public Park Sinking Fund . .	107 75	
Transferred to Park Nursery	28 74	
Balance remaining Dec. 31, 1889	6,929 34	
	<hr/>	\$83,836 04
		<hr/>

PUBLIC PARK LANDS.

Balance unexpended Dec. 31, 1888		\$47,659 26
<i>Expenditures.</i>		
Paid on account of Parkway	\$11,068 09	
Balance unexpended Dec. 31, 1889	36,591 17	\$47,659 26

PUBLIC PARK CONSTRUCTION.

Balance unexpended Dec. 31, 1888	\$1,857 13	
Public Park Construction Loan, issued in 1889	500,000 00	\$501,857 13
<i>Expenditures.</i>		
Paid on account of Franklin Park	\$227,442 66	
Paid on account of Parkway	98,397 13	
Paid on account of Marine Park	90,796 13	
Paid on account of Charlesbank	25,923 04	
Paid on account of Arnold Arboretum	9,029 41	
Paid on account of Wood Island Park	7,569 98	
Balance unexpended Dec. 31, 1889	42,698 78	\$501,857 13

II.

Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Dec. 31, 1889.

PARKWAY CONSTRUCTION.

BACK BAY FENS.

<i>Receipts.</i>		
From appropriations for Back Bay Fens	\$1,082,179 39	
From loan for Public Park Construction	439,519 06	
From appropriations for Park Department	22,868 85	
From Income Account	8,449 41	\$1,548,016 71
<i>Expenditures.</i>		
Filling	\$484,388 63	
Excavating, grading, loam, and general work	416,287 56	
Roadways, sidewalks, gutters, and drainage	199,806 95	
Amount carried forward,	\$1,099,978 14	

<i>Amount brought forward,</i>	\$1,099,978 14	
Retaining-walls, curb, and fence	107,284 71	
Boylston bridge	92,011 43	
Beacon entrance bridge (Charlesgate West)	56,675 79	
Agassiz bridge	48,393 95	
Plantations	46,638 07	
Railroad bridge	39,995 04	
Plans and designs	23,692 89	
Office and general expenses	14,114 92	
Machinery, tools, etc.	18,759 61	
Surveying	5,472 16	
	<hr/>	\$1,548,016 71
		<hr/>

MUDDY RIVER.

Receipts.

From appropriations for Muddy River Improve- ment	\$4,000 00	
From loan for Public Park Construction	369 01	
	<hr/>	\$4,369 01
		<hr/>

Expenditures.

Surveys, plans, and designs	\$4,310 71	
Gate-house	58 30	
	<hr/>	\$4,369 01
		<hr/>

III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Dec. 31,
1889.*

PUBLIC PARK CONSTRUCTION AND MAINTENANCE.

Receipts.

Public Park Loan for lands, less balances merged	\$2,883,791 73	
Appropriations, less transfers, merged bal- ances, and betterment expenses	1,619,611 49	
Public Park Construction Loan	1,500,000 00	
Income appropriated to maintenance	60,355 81	
	<hr/>	\$6,063,759 03
		<hr/>

Disbursements.

Parkway construction	\$1,552,385 72
Franklin Park land	1,428,866 99
Parkway land	672,182 20
Franklin Park construction	657,598 29
Charlesbank land	370,886 45
Marine Park construction	273,744 87
Charlesbank construction	258,507 66
Marine Park land	232,972 57
Arnold Arboretum construction	103,229 02
Arnold Arboretum land	79,932 71
Wood Island Park construction	74,040 88
Franklin Park maintenance	54,137 78
General account	52,467 75
Wood Island Park land	50,000 00
Park Nursery	28,328 63
Parkway maintenance	20,535 13
Arnold Arboretum maintenance	13,404 48
Marine Park maintenance	12,833 67
Charlesbank maintenance	12,663 82
Wood Island Park maintenance	52 63
Balance unexpended Dec. 31, 1889	124,988 83
	<hr/>
	\$6,063,759 08

PUBLIC PARK DEBT AND SINKING FUND.

Receipts.

Appropriations for interest on debt	\$760,435 71
Appropriations for Sinking Fund	409,371 00
Received from betterments, less refunded	307,749 12
Interest on bank deposits and investments	151,582 11
Income applied to the payment of debt	94,000 00
Income paid into Sinking Fund	132,296 86
From Park appropriations for betterment expenses	9,677 62
From Reserved Fund for repayment of betterments	241 16
Unexpended balances of loans for Park lands paid into Sinking Fund	180 84
	<hr/>
	\$1,865,534 42

Disbursements.

Interest on Public Park debt	\$760,435 71	
Debt paid by Sinking Fund	450,000 00	
Public Park Sinking Fund	543,280 36	
Debt cancelled by revenue and betterments	99,000 00	
Betterment expenses	9,677 62	
Betterments held under protest	2,893 87	
Betterments repaid from Reserved Fund	241 16	
Betterments received by City Collector, but not yet credited to Sinking Fund by City Treas- urer	5 70	
	<hr/>	\$1,865,534 42
		<hr/>

DEBT STATEMENT.

The Public Park Debt, Dec. 31, 1889, to be paid as it becomes due from the Resources of the Public Park Sinking Fund.

Franklin Park, 4% Loan, due Jan. 1, 1913	\$233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1913	50,000 00
Franklin Park, 4% Loan, due April 1, 1913	300,000 00
Charlesbank, 4% Loan, due April 1, 1913	285,000 00
Marine Park, 4% Loan, due April 1, 1913	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	119,000 00
Franklin Park, 4% Loan, due Jan. 1, 1914	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1915	16,000 00
Marine Park, 3½% Loan, due Oct. 1, 1915	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916	20,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1916	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917	400,000 00
Public Park Construction, 3½% Loan, due Jan. 1, 1937	500,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1918	450,000 00
Public Park Construction, 4% Loan, due April 1, 1918	5,000 00
<i>Amount carried forward,</i>	<hr/> \$3,290,000 00

<i>Amount brought forward,</i>	\$3,290,000 00
Public Park Construction, 4% Loan, due July 1, 1918	5,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	40,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1919	480,500 00
Public Park Construction, 4% Loan, due April 1, 1919	16,000 00
Public Park Construction, 4% Loan, due July 1, 1919	3,500 00
Total Debt	\$3,885,000 00
Less the means in the Sinking Fund, and in hands of City	
Treasurer for paying the same, Dec. 31, 1889	546,179 98
Debt, less means for paying	<u>\$3,288,820 07</u>

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Dec. 31, 1889, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

New Library Building, 8½% Loan, due July 1, 1899, \$150,000 00	
Franklin Park, 4% Loan, due Jan. 1, 1913	100,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00
Wood-Island Park, 4% Loan, due Jan. 1, 1913	50,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	19,000 00
Cochituate Water, 4% Loan, due April 1, 1917	25,000 00
Cochituate Water, 8% Loan, due April 1, 1917	25,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	28,500 00
Total investments	\$452,500 00
Cash	90,780 86
Total resources	<u>\$543,280 86</u>

PARK CONSTRUCTION.

The following is an account of the operations of the Department during the past year ; a more detailed statement by the Engineer will be found in the Appendix : —

Wood Island Park, East Boston. — The approaches from Neptune Bridge on the Park grounds have been partially graded with material taken from the site of the proposed playground on the northerly slope of the Park. The work is being done under a new laying out by the Landscape Architects, which will effect a saving in the construction of the Park.

Marine Park. — The pier-head, a contract for which was let early in the season, is nearly completed. Four spans have been added to the iron pier, and a contract has been made for the remaining span to be placed in position when the pier-head is finished. The Board has made a contract for 200,000 cubic yards of filling, under which about 25,000 cubic yards have been deposited.

Charlesbank. — The grading and planting has been finished, the gymnasium completed and opened to the public, and a building for use in connection with the gymnasium and for administration purposes erected. Gas lamps have been placed along the embankment wall, and 100 park settees arranged along the walks. The girls' gymnasium ground is ready for the building and the apparatus, and the children's playground is nearly completed.

The Parkway — Back Bay Fens. — Audubon Road on the westerly side of the upper basin has been finished for a distance of 1,700 feet from Agassiz Road, and the adjoining slopes and large island planted. On the easterly side the slopes have been completed and mostly planted from Agassiz

Bridge to the new Stony-Brook outlet, the walk graded and partly built, and, except for a short distance near the Stony-Brook outlet, the slopes around the southerly side of the basin to the location of the Fen Bridge have been graded and loamed ready for planting. The walk on this side has also been graded. The channel has been dredged and the shores completed up to the proposed Fen Bridge at the point where the Parkway is to turn towards Brookline Avenue. Excavations for the foundations of the bridge have also been made. The curbstones and paving blocks for the Fenway from Agassiz Road to the new outlet of Stony Brook have been purchased, and are on the ground, and a large amount of road material has been prepared for use next year. The Sewer Department has also partly built the abutments and piers for the Stony-Brook Bridge. The question occurs whether the Sewer Department is to build this bridge. The Board does not see how this work can be said to belong to the Park Department, inasmuch as Stony Brook was led into the Parkway at this point by the Sewer Department, and this necessitated the bridge, there being already another channel of Stony Brook into the Fens.

Arnold Arboretum. — The driveway from the present drive to Walter Street has been graded for about three-quarters of the distance, — about 2,000 feet, — including the building of one culvert.

Franklin Park. — The Playstead Shelter and the grounds and walks about it were finished, and, together with the Playstead, were opened to the public on the 12th of June with appropriate ceremonies.

The Walnut-Avenue Entrances were also finished early in the season, and the grounds about them planted. A rustic fountain of field stone, supplied with water from a neighboring spring, was erected near the Playstead Road.

The Old Trail Road entering the Park from Seaver Street, opposite Humboldt Avenue, has been finished and the slopes graded.

The valley gate to the Country Park and about 3,500 feet of the Park wall on the line of Glen Lane have been completed. Glen Lane (for heavy traffic) has been graded for two-thirds of the distance across the Park, and about half the whole length of the road macadamized and furnished with edgestones and gutters.

The circuit drive has been completed and opened to travel from the valley gate to Walnut Avenue near Ellicott Street, — about one-half mile, — the slopes graded and some of the adjacent walks built. This included Ellicott arch, which carries the drive and ride over the walk from Williams-Street Entrance to Ellicottdale. The ride has been partly subgraded along this part of the circuit drive.

The circuit drive from Walnut Avenue, near Ellicott Street, has been subgraded to the road leading to the Dairy and Scarboro Hill, and the subgrading of this road is now in progress. Some work has also been done on the Loop Road in the Wilderness.

Ellicottdale has been cleared of stone, drained, and mostly graded.

The upper part of the valley southerly from the valley gate, including the old location of Williams Street, has been cleared and graded, and the main line of the Park drainage has been extended.

There is but little more required to finish the surface of the Country Park as it is designed to be left for use by the public, and the Board hopes that it can be finished next season, not including the circuit drive from Scarboro Hill around the southerly and easterly sides to Glen Lane.

A flock of 56 sheep has been obtained for the Country Park, and a temporary sheep-fold provided.

VALLEY CAFE PRINTING CO.

VALLEY CAFE FRANKLIN PARK

The Board would recommend that the City Council pass the order for a loan of \$600,000, outside the debt limit, as authorized by the Legislature in 1888 for the purchase of additional land required for parkways connecting Back Bay Fens, Franklin, and Marine Parks, especially in view of the fact that each year's delay enhances the price of the lands to be acquired, and so increases the cost; and of the fact that the extension of the Back Bay Fens as planned cannot proceed unless additional land is first purchased.

The Board would also suggest that an early construction of the bridge required at the new outlet of Stony Brook by the Sewer Department will enable the Board to finish its work in the vicinity now suspended; and that the placing of edgestones around the areas reserved for planting on Commonwealth Avenue, by the Paving Department, must precede the work of this department in planting the areas which are now in its charge.

THE PARKWAY SYSTEM.

In 1888 the Legislature authorized the city to borrow \$600,000 outside of the debt limit for the purchase of lands for the Parkway, upon the request of this Board for a loan of \$1,000,000, leaving the balance of the amount then required, namely, \$400,000, open for future action. The links in the chain of parks and parkways thus unprovided for were Jamaica Pond and parkway of about 120 acres, two short lengths of parkway between Jamaica Pond and Franklin Park, and the way between Franklin and Marine Parks, which latter it was understood would be provided for by the city in the proposed widening of Columbia and Boston streets. Of the first of these important connections, the Board, in its report of 1876, says:—

“The area of Jamaica Park, including the pond of seventy

acres, is one hundred and twenty-two acres. This beautiful lake is the only important sheet of fresh water within the city limits. For a short distance on its northerly and southerly sides it is skirted by the highway, and from these points of view its beauty is familiar to the public. Its western shore is a somewhat steep hillside, well planted with trees and shrubbery, and mostly occupied at present by private dwellings, with their adjacent ornamental grounds, seriously disfigured, however, within a few years, by the erection of extensive ice-houses. Its eastern border is less bold, more irregular in outline, and at present occupied by private dwellings, with their lawns and shrubberies, and with some fine trees. The different characters of the opposite shores contrast well with each other. Unless the city takes possession of the entire shore, the rural character of the scenery will probably be hopelessly destroyed within a few years. As estates come into the market, one after the other, the banks will be denuded of their present fine growth, and be replaced by unsightly ice-houses, with their adjuncts of stables and tenements, by which the pure waters of the pond will be defiled,—dangers already threatened.

“The chance that this pond, situated in an extensive plain, with a range of high hills on three sides, in the midst of such a dense neighborhood as within a few years will exist around it, will become pestilential, and the certainty that, if defended and used as proposed, it will be of great sanitary advantage to the city, are considered to be conclusive reasons for this location. The Commissioners cannot too strongly urge the importance of early action in the premises in order to avert the danger and secure the benefit. The pond is a favorite resort of skaters in winter, and, to a limited extent, is used for boating in summer, and these will be encouraged and rendered more safe by police regulations. It lies between

the four and four and one-half mile circles. Its approach from town will be by the Jamaica Park Muddy-River Improvement) which will skirt the shore, while the western will be traversed by foot an paths. Notwithstanding the comparatively large an improvements, in the form of dwellings, ice-hous upon this location, the Commissioners are of the that the cost will be justified by the exceptional cha the Park."

The amount necessary to be obtained, in additio \$600,000 already authorized, to enable the Board to lands required to complete the Parkway system proposed will, with the increase of valuations during two years, be \$500,000. It is believed to be the be to secure these lands at once before building enterp increased land values make them more expensive.

A new plan for laying out the Muddy-River sectic Parkway, prepared by the Landscape Architects, is printed.

MARINE PARK.

The Harbor and Land Commissioners having de in their plans for the occupation of the South Bost to provide a reserved channel along the north South Boston, which had received the sanction of th nor and Council, and which had also received the of nearly all the shore owners and proprietors of it remained for this Board to adjust the northerly the Marine Park to the line of the proposed channe required a further act of the Legislature, which was c and will be found in the Appendix.

As the preliminary study for a plan of the Mari published in 1883 covered a larger area of flats t

been granted by the Commonwealth, a new study was thereupon undertaken by the Landscape Architects to adjust the purposes of the old plan to the new lines.

Meanwhile the Board of Engineers appointed by the United States Government to report upon and recommend harbor lines to be established by the Secretary of War, convened in this city, and gave a number of hearings which this Board attended with the object of securing action favorable to the carrying out of the plan of the Marine Park. At these hearings the Board submitted the modified plan of the Park prepared by Mr. Olmsted, and, at the suggestion of the Board of Engineers, a bridge to connect the Marine Park with Castle Island was inserted in the plan.

The United States Board of Engineers, being restricted in its powers to the delimitation of harbor lines, could make no official recommendation of the project of connecting Castle Island with the Marine Park, although requested to do so by this Board; but it is believed that if the subject were referred to a similarly constituted Board of Engineers a favorable report would be given. The matter has therefore again been presented to Congress, — this time by Congressman O'Neil, in whose district the island lies, — the proposed joint resolution, similar to that passed by the last Congress and vetoed by the President, being as follows: —

Joint Resolution authorizing the improvement of Castle Island in Boston Harbor, owned by the United States.

Be it resolved, by the Senate and House of Representatives of the United States of America, in Congress assembled: —

That permission be, and is hereby, granted to the City of Boston, in the State of Massachusetts, through its Park Commissioners, to improve and beautify Castle Island, situated in said city, and belonging to the United States, in connection with a public park to be laid out on land adjoining and connecting with said island, with the right to said City of

Boston to make such excavations and fillings, and erect and maintain such structures as the Secretary of War may from time to time approve; *provided*, that this resolution shall not be construed to pass any title in said island, but that the ownership and control of the said grounds shall remain entirely in the United States, and shall be subject to such changes and uses for military purposes as the Secretary of War may direct.

The revised plan for the Marine Park, prepared by the Landscape Architects, and submitted to the Board, and a modified plan to provide for the immediate use of the island in its present condition by the public, are herewith published. A brief report by the Landscape Architects in regard to the plans follows.

THE HON. BENJAMIN DEAN, *Chairman of the Board of Commissioners of Public Parks* : —

SIR, — In certain particulars the general plan of Marine Park must remain of a tentative character as long as it is an open question precisely what arrangement the United States will allow to be made in connection with Castle Island.

The first of the plans herewith submitted is an answer to the following question : —

Suppose the United States should be willing to extend the Park abreast of Fort Independence on its land side, but not to make a road on its side toward the ship channel ; suppose that it should require that it remain surrounded by water and accessible only by a drawbridge, so that, in war time, public approach to it can be prevented ; and suppose it should be desired to provide ample accommodation for the proposed salt-water aquarium of the Natural History Society as near as practicable to the deep water of the harbor, — what variation from the original plan could be satisfactorily made ?

The second of the plans for Marine Park herewith presented is an answer to the question, —

What arrangement would the designers propose if required to considerably reduce the area of land to be formed abreast of the island, disregarding the aquarium project ?

With regard to the latter suggestion we may add that should it be

thought best to adopt it, a readjustment of the plan can be made in which the aquarial garden would be provided for between the drive and the west border of the Park.

Respectfully,

F. L. & J. C. OLMSTED,

Landscape Architects Advisers

Boston, Mass., 23d December, 1889.

Objections having been raised by the Committee on Streets and Parks of the Citizens' Association of Boston and by Ward 14 Republican Club to the widening of the sidewalks on Q Street, particularly to that of the promenade on the easterly side, which is laid out twenty feet wide with six feet additional space for a row of trees, the following communication was made in reply thereto :—

DEPARTMENT OF PARKS, CITY OF BOSTON,

BOARD OF COMMISSIONERS,

85 MILK STREET, Sept. 11, 1889.

GENTLEMEN,—The Park Commissioners duly received copies of resolutions, dated Aug. 25th and 30th, passed by Ward Fourteen Republican Club and the Committee on Streets and Parks of the Citizens' Association of South Boston, protesting against the plan which has been adopted for laying out Q Street, particularly in reference to the promenade on the easterly side.

The resolutions, besides objecting to the plan of the Park Commissioners, asked for a hearing before the orders of the Park Commissioners or the Committee on Paving in relation to the matter should be put into effect. Copies of these resolutions were sent to His Honor the Mayor, the Committee on Paving, and the Park Commissioners.

Moved by this request, the Commissioners answered on the 3d September that a hearing would be given at an early day, and the following day issued invitations for a conference on the 6th at the residence of the Chairman, on the corner of Q Street and Broadway. The Commissioners regret that because, as they are informed, of the short notice this hearing was not attended by those interested, it having been hoped that an exchange of opinions would render further proceedings on the matter unnecessary.

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The subject having now been taken up by the Committee on Paving, the Commissioners take this method of informing that Committee and others concerned as to their views upon it.

Although the plan of this work is subject to variation in important details in accommodation to conclusions yet to be reached by the National, the State, and the City Governments, it is not expected that the leading intentions adopted by the predecessors of the present Commissioners will have to be abandoned in any essential respect, and of these intentions the sketch published in 1883, under the title of "A Preliminary Study of a Plan for a Pleasure Bay," may be taken as a sufficient exponent.

From the sketch it will be seen to have been designed, —

First. That there should be formed, off City Point, a sea-beach a mile in length, sweeping about a bay, which bay would serve as a rendezvous for pleasure boats and a field for aquatic sports, with a pleasure walk and drive of equal length, laid along the head of the beach, from which there would be an extended prospect of the islands and shores to the south-eastward.

Second. That there should be a pier carried out far enough from the western headland of the bay to open to view two fine expanses of natural scenery, not otherwise to be commanded from any public ground in the city; one towards the ocean, the other towards the head of Dorchester Bay.

Third. That, looking landward from the bay and the beach drive and walk, visitors should have before them a body of foliage corresponding in scale with the other great features of the extended local scenery; that this body of foliage should have an unbroken and gracefully continuous sky line, and a face advancing and retiring in such manner that there would be a pleasing play of light and shade upon a sloping field of turf between Q Street and the beach drive.

Fourth. That, as visitors coming in carriages would have to leave them to go upon the pier, a concourse three hundred feet square should be provided for carriages to stand in, clear of the streets and roadways, and that this concourse should have broad carriage entrances direct from Q Street, as well as from the beach drive.

It will be observed that the features of the plan, to which your attention has thus been called, are not at all such as would be looked for in the plan of an ordinary local park. They are intimately related to broad circumstances of natural topography and landscape, extending a distance of miles from the city. The scheme is, at best, costly, and only

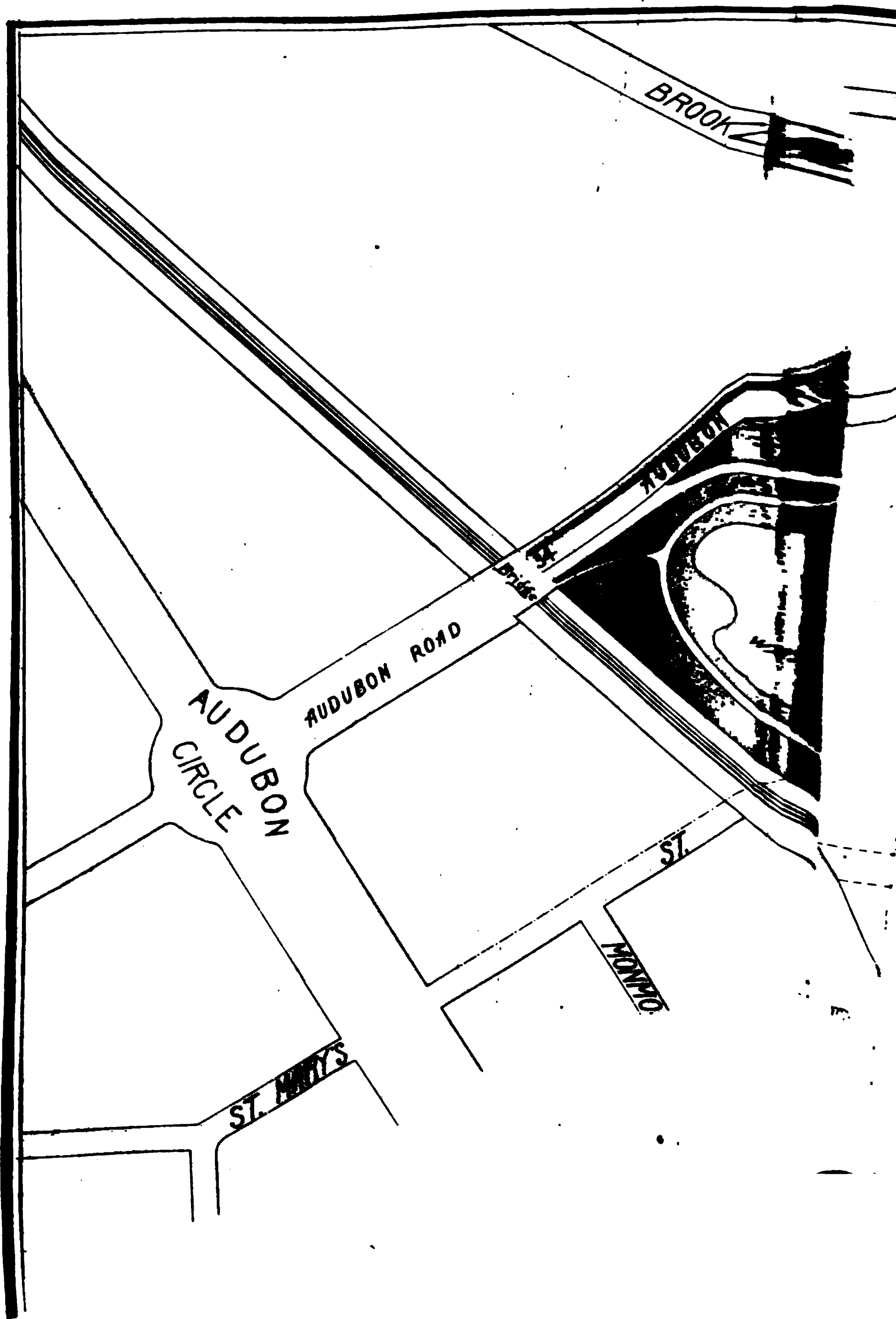
to be justified by the conviction that the city possesses advantages in the peculiar circumstances of the locality, which it would be folly to fritter away by the adoption of any project of a cheaper and more commonplace character. Economy requires that the operations which it involves should be carried on in well-considered order, one paving the way to another, and that every advantage practicable should be taken of the local peculiarities of topography.

To avoid unnecessary expense in making land, the new shore of the bay, where its trend will be most nearly parallel with Q Street, must be formed at no greater distance from Q Street than is necessary to allow a suitable grade for the passage of carriages moving from Q Street to the beach drive. But for this consideration a much broader space would be desirable between Q Street and the bay than the plan provides for. As it is, the space allowed will be cramped with reference to the landscape design of the Park, as explained under the third head above. For the reason thus indicated it is important that the trees that are to be on the west side of the intended body of foliage, between the beach drive and Q Street, should stand as far to the westward as practicable. Supposing these trees to have grown to full size, it will be seen that, standing in their shade and looking under them, the observer will be at a more elevated point, and will command a more comprehensive view than can be found anywhere else within the Park. His prospect will take in the entire Park, with the pier, Castle Island, the ship channel, and the upper harbor with its islands and shores. The narrowness of the available space, and the necessary slope of the surface of the ground, stand in the way of any broad winding walk in this quarter of the Park.

Taking all the above considerations into account, it had been thought by the predecessors of the present Commissioners that a formal mall should be laid out along the west border of the Park. It was further thought best that this mall should be shaded in the afternoon by a row of trees on its west side. Such a row of trees, allowing for varying elevation of the ground on which they would be planted, and for varying rates of growth, would provide the flowing skyline of foliage desired in that quarter of the Park as a matter of general landscape effect. That the trees might flourish, it was thought best that borders of soil six feet wide should be prepared on the west side of the mall. It was then further considered that the mall would make any sidewalk on the east side of Q Street unnecessary, even more than the mall on the east side of the Common makes a sidewalk unnecessary upon the west side of Tremont Street.

acres, is one hundred and twenty-two acres. This beautiful lake is the only important sheet of fresh water within the city limits. For a short distance on its northerly and southerly sides it is skirted by the highway, and from these points of view its beauty is familiar to the public. Its western shore is a somewhat steep hillside, well planted with trees and shrubbery, and mostly occupied at present by private dwellings, with their adjacent ornamental grounds, seriously disfigured, however, within a few years, by the erection of extensive ice-houses. Its eastern border is less bold, more irregular in outline, and at present occupied by private dwellings, with their lawns and shrubberies, and with some fine trees. The different characters of the opposite shores contrast well with each other. Unless the city takes possession of the entire shore, the rural character of the scenery will probably be hopelessly destroyed within a few years. As estates come into the market, one after the other, the banks will be denuded of their present fine growth, and be replaced by unsightly ice-houses, with their adjuncts of stables and tenements, by which the pure waters of the pond will be defiled,—dangers already threatened.

“The chance that this pond, situated in an extensive plain, with a range of high hills on three sides, in the midst of such a dense neighborhood as within a few years will exist around it, will become pestilential, and the certainty that, if defended and used as proposed, it will be of great sanitary advantage to the city, are considered to be conclusive reasons for this location. The Commissioners cannot too strongly urge the importance of early action in the premises in order to avert the danger and secure the benefit. The pond is a favorite resort of skaters in winter, and, to a limited extent, is used for boating in summer, and these will be encouraged and rendered more safe by police regulations. It lies between



BROOK

AUDUBON

AUDUBON
CIRCLE

AUDUBON ROAD

BRIDGE

ST.

ST. MARY'S

ST. MARY'S

the four and four and one-half mile circles. Its chief approach from town will be by the Jamaica Parkway (or Muddy-River Improvement) which will skirt the eastern shore, while the western will be traversed by foot and saddle paths. Notwithstanding the comparatively large amount of improvements, in the form of dwellings, ice-houses, etc., upon this location, the Commissioners are of the opinion that the cost will be justified by the exceptional character of the Park."

The amount necessary to be obtained, in addition to the \$600,000 already authorized, to enable the Board to take the lands required to complete the Parkway system as above proposed will, with the increase of valuations during the last two years, be \$500,000. It is believed to be the best policy to secure these lands at once before building enterprises and increased land values make them more expensive.

A new plan for laying out the Muddy-River section of the Parkway, prepared by the Landscape Architects, is herewith printed.

MARINE PARK.

The Harbor and Land Commissioners having determined in their plans for the occupation of the South Boston Flats to provide a reserved channel along the north shore of South Boston, which had received the sanction of the Governor and Council, and which had also received the approval of nearly all the shore owners and proprietors of wharves, it remained for this Board to adjust the northerly limits of the Marine Park to the line of the proposed channel. This required a further act of the Legislature, which was obtained, and will be found in the Appendix.

As the preliminary study for a plan of the Marine Park published in 1883 covered a larger area of flats than had

think it proper to add that, to the best of their judgment, the arrangement concluded between their predecessors and the Street Commissioners would, if carried out, prove satisfactory.

Respectfully,

BENJAMIN DEAN,
ISAAC FENNO,
THOMAS L. LIVERMORE,

Commissioners.

To the Committee on Paving of the Board of Aldermen,
The Ward 14 Republican Club, and the
Committee on Streets and Parks of the Citizens' Association of South Boston.

A hearing, as requested by the petitioners, was given by the Committee on Paving of last year, which this Board and many citizens of South Boston attended, and subsequently the Board of Aldermen passed an order establishing the sidewalk on the easterly side of Q Street at 15 feet wide.

This Board doubted the efficacy of such an order, from the fact that the sidewalk referred to is entirely within the strip of park territory, which was laid out by the Street Commissioners, at the request of the Board, — which request provided for the larger walk or promenade as referred to above, — under section 13 of the Park Act (chap. 185 of the Acts of 1875) which provides that "No street or way, and no steam or horse railroad shall be laid out over any portion of any park located under this Act, except at such places and in such manner as said Board (Park Commissioners) shall approve."

The Board has therefore requested an opinion from the Corporation Counsel in regard to the validity of the order.

NATURAL HISTORY GARDENS.

The following communication from the Council of the Boston Society of Natural History, in further explanation of its plans for establishing Zoölogical Gardens and Aquaria in the

public parks, was received, and action taken thereon as below : —

To the Honorable the Park Commissioners of the City of Boston : —

GENTLEMEN, — The Society of Natural History has been earnestly and constantly engaged in work upon matters connected with the foundation of natural-history gardens, since the receipt of the last letter of the Commissioners, dated Dec. 30, 1887, and has finally concluded to offer the following as plans of what they deem to be best, hoping, if these are accepted, to follow up this first step very rapidly, so as to bring the matter speedily before the public. They propose to designate all the collections of living animals under their charge as the Natural History Gardens, and to establish under this title three different divisions, — one to be called the Marine Aquarium, a second the Fresh Water Aquarium, and the third the New England Zoölogical Garden ; these to be situated on grounds and to have buildings such as may be mutually agreed upon by the Commissioners and by the Society, in accordance with the provisions of the letter of the Commissioners above referred to.

In compliance with your request to present a statement of the proposed policy of the Society in regard to the exhibits at the places designated by you, — namely, at City Point, near Jamaica Pond, and at Franklin Park, — the Council herewith offers for your consideration the following general statement and the outline of its plans with reference to each of the three divisions.

The attention of the Commissioners is invited at the outset to the scientific and educational character of the plan of the Natural History Gardens. The three divisions of this department of the Society's work, when regarded as a whole, form a connected series of exhibitions which will, it is hoped, illustrate more completely than has ever been done before the relations of organisms to the four great regions of their distribution, — the sea, the fresh water, the land, and the air. The principle underlying the whole, and to which each part, however small, has been made to contribute, is the illustration of the relations of plants and animals to their surroundings. The Council believes that a full exposition of the laws governing these correlations is the fittest use they can make of the opportunities offered by the Commissioners, and the most valuable contribution which they and the Commissioners acting together can bring to the cause of public education.

I. MARINE AQUARIUM.

In the maps of the proposed Marine Park the lands and ponds assigned for the use of the Society are admirably suited for the purposes of a large aquarial garden ; and the Council desires to express its satisfaction with these indications of the intentions of the Commissioners, for they confirm the Council in the opinion that it will be practicable to found a Marine Aquarium at this place which will be of unique excellence as an instrument of popular interest and education.

1. A collection of living organisms arranged and exhibited for the illustration of natural laws has a fuller effect, if the minds of the students and visitors have been prepared by previous study ; or, in place of this, if they have at hand a brief explanation of the general structure and relations of animals and plants to each other and to their surroundings.

The Society proposes to supply this explanation by means of an epitome collection which, with a printed guide, shall explain the structure and relations of the more important subdivisions of animals and plants, the general adaptations of the structure of organisms to an aquatic existence, and the fact that under ordinary conditions, however diverse, the organisms retain their typical structures. This collection would consist of two classes of objects, — (a) a series of representative forms, including the principal types of animals and plants ; (b) such general dissections and other anatomical preparations of selected types, accompanied by diagrams, as may enable the observer to grasp the fundamental points of the structure, physiology, and correlations of the animal kingdom, but with special reference to those living forms which constitute the whole aquarial exhibit. These collections, being an introduction to the larger display, should occupy one room, serving also as the vestibule or entrance-hall in the main building.

2. The correlations between certain structures and parts in animals, and their habits and natural surroundings, can be illustrated by placing plants and animals that live on muddy, sandy, gravelly, or rocky parts of our own shores in separate aquaria properly arranged and furnished. The suitability of organisms to the work they have to do could be illustrated in this and other ways, and clear ideas of one of the fundamental laws of organic modifications presented to intelligent visitors and students.

3. The extraordinary modifications which have taken place in the structure of the descendants of air-breathing land animals, in order to fit them for life in the sea, would be illustrated in the aquaria and also in the salt-water ponds. These would be used for such seals, cetacea,

and other marine animals as are either too large to be accommodated in tanks in the buildings, or which can be most appropriately exhibited in such enclosures. Adaptations equally fitting and instructive are found in birds which live upon the sea or its borders; and examples of these forms would be shown in the same ponds, or in appropriate places upon their margins.

4. It is well known that the distribution of plants and animals is limited more, perhaps, by temperature than by any other single cause. It is practicable to illustrate this great law of distribution with suitably constructed and properly arranged aquaria, stocked and kept supplied with animals and plants taken at moderate depths upon our own coasts. The problems connected with obtaining and handling animals gathered at great depths present difficulties with which no garden should attempt to cope until it is completely organized. ●

5. Faunal collections would compose the greater bulk of the marine aquaria. It is intended to group these together in such a way as to represent the association of the forms in their respective habitats. No attempt, of course, would here be made toward systematic grouping, but very dissimilar forms would be associated together, bringing prominently into view the geographical distribution of types. In one room of suitable size aquaria would be devoted solely to the marine plants and animals of the North Atlantic, from Cape Cod northward. As a part of this collection a series of aquaria would be maintained for the exhibition of the commoner plants and animals occurring on the coast of Massachusetts. These forms could be permanently supplied, and, being named and described in a proper guide-book, would be of great interest to all persons living on the seashore. The fauna south of Cape Cod is in large part easy of acquisition, and could also be well represented in separate series of aquaria. The fauna south of Cape Hatteras and that of the western coasts of the United States, and other faunas, could also be exhibited, as opportunities presented themselves, either to a limited degree, or more or less extensively if the future progress and success of this division warranted the extension.

II. FRESH WATER AQUARIUM.

It is obvious that an epitome collection is as desirable for the explanation of the relations of fresh-water plants and animals as of the marine.

1. The Society would therefore form an epitome collection similar to that planned for the Marine Aquarium; but this would necessarily

differ in the details of its composition, fresh-water plants and animals being used instead of marine types. The adaptations of the structures of organisms to an aquatic existence would be exhibited by means of preparations of the gills, etc., as in the corresponding marine collection; but special adaptations to a fresh-water existence, such as the mode of reproduction of sponges, bryozoa, and some crustaceans by means of winter buds, the effects of desiccation upon some of these, and their mode of transportation from pond to pond, the contrasted structures of corresponding fresh-water and marine shrimps, the peculiarities of the batrachians, showing the transitions from a purely aquatic to a terrestrial type, and similar classes of facts, would be prominently illustrated. The fresh-water faunas of the globe are all secondary, or derived mainly from the marine faunas. This can also be approximately demonstrated in the epitome collection by placing side by side a certain number of marine and fresh-water animals in series or in pairs, including occasionally some fossils, in order to compare the existing *Amia*, garpikes, etc., with their marine but now extinct ancestors.

2. Some of the most important results of research bearing upon the evolution of organisms have been attained by means of experimentation, and it is of the greatest importance for educational purposes that illustrations of such facts should be made accessible to teachers and students. We would therefore aim at the repetition of some of these experimental observations, and make permanent exhibitions of the results. For example, a series of aquaria could be maintained, showing the gradual modification of the brine shrimp in passing from a saturated solution of salt through ordinary salt and brackish waters to a final lodgment in purely fresh water, where it becomes transformed into a well-known fresh-water type of crustacean; another series repeating Semper's experiments upon the snail, *Lymnæa stagnalis*; and still others showing the results of experimentation upon the development of the axolotl, salamanders, etc. This department would also include aquaria for the exhibition of the animals and plants now living in mineral or hot springs, the Caspian and Dead Seas, and other anomalous and more or less isolated positions, such as caves and subterranean rivers.

3. Fresh-water plants and animals are not wholly derived from the sea; many of them are modified descendants of terrestrial organisms that have changed their habitat and become suited to an aquatic existence. Some of the ponds would be used to exhibit this important fact, since in them the larger air-breathing animals that live on or in the fresh waters (such as the swimming and wading birds; the batrachians,

— frogs, salamanders, etc.; the reptiles, — snakes, turtles, and alligators; beavers, muskrats, and possibly larger representatives of the mammalia from the tropics, such as the hippopotamus) could be confined. Some of these ponds would also be devoted to the exhibition of the Liliaceæ and other plants, which, although originally truly terrestrial and flowering plants, have become more or less modified and fitted for aquatic life. The huge leaves and flowers of the *Victoria regia*, and the lovely color of many of these annuals floating upon the glassy surface of the water and framed in a shore growth of rushes and grasses, would form pictures of rare beauty and attractiveness.

4. Insects, although as a whole purely terrestrial and aerial, contain a number of groups that pass either a portion or the whole of their lives in water. An Insectary would therefore be established, furnished with aquaria, placed in the midst of suitable plants, and surrounded by ample cages of netting for the confinement and display of the adults after they have passed through their transformations and have begun to fly. This part of the exhibit could be made exceedingly instructive by means of a printed guide explaining the transformations of the insects shown in the aquaria and cages.

5. The fauna of our own fresh waters is apt to strike one at first as uninteresting; but it contains sponges, especially interesting to the public on account of their effect on the water supply; many microscopical plants that can be cultivated in masses so as to be seen by the unassisted eye; large bryozoa, such as *Pectinatella*, growing in heads like a brain-coral; bivalves and snails of respectable size; several interesting species of batrachians, and many fishes of remarkable structure and habits. We would therefore bring together a series of aquaria, exhibiting the animals of the fauna of New England and Eastern Canada, and also keep in view the idea of explaining their more obvious relations to the water supply of our cities. The fauna of the inland waters of the western and southern parts of North America is accessible, and should be shown, in so far as the more prominent forms are concerned, in a separate series of aquaria. Opportunities will perhaps be offered in the future for the acquisition of the larger and more interesting organisms of other faunas; these can be exhibited, provided the future success of this division justifies an extension of the plan.

III. NEW ENGLAND ZOÖLOGICAL GARDEN.

The grounds at Franklin Park assigned by the Commissioners for the use of the Society are suited only to the third division of our Natural

History Gardens, — the higher vertebrates or the larger terrestrial and aerial animals; and here, better perhaps than anywhere else, would it be possible to carry out one of the favorite projects of the supporters of the Society, namely, such exhibitions as would familiarize the observer with the animals of New England. For in Long Crouch Woods we have not only a characteristic fragment of New England scenery and rock structure, but by the limitations of the surface and of the territory it would be impossible to make there any extensive display of foreign forms.

1. We would exhibit fully the animals of the North Temperate Zone of the New World, limiting this zone to about eight or ten degrees of latitude on the parallels of New England, and thus display those which one might see at any point within the Northern United States. All these animals could be cared for in such a place at the minimum expense, for their habits in a wild state have accustomed them to brave all the severities and vicissitudes of our climate. It being easier to obtain and to maintain the animals of this zone which are nearest home, it would follow that the great bulk of the collection at all times would be made up of animals characteristic of New England. But as we thus necessarily touch upon one of the prime features of life upon the globe, — its geographical distribution, — so we may make the lesson far more telling if we add to this assemblage just those animals (and no others) which in other faunas specially represent our indigenous animals. Thus, to instance one or two points, we would exhibit side by side with the Rocky Mountain goat the chamois, structurally allied, adapted for and dwelling in similar mountain regions, characteristic of the Old as our own is of the New World; beside the cougar, or American panther, we would display the jaguar of South America; beside the black, the brown bear; while to correspond with the opossum, we would seek a relative, not in the more nearly allied marsupials of South America, but in the distinctive home of marsupials, among the strange forms which occur in Australia. As it would not be necessary to seek this counterpart for each animal, but in many cases only one for an entire series, as with the mice, hares, foxes, and so on, it will be seen that the collection would not be very largely increased, while its increase would be strictly limited, and its educational value greatly enhanced. It might be desirable to extend the collection in one or two instances, but in these only, in the case of great groups, not represented in our own fauna, such as the ornithorhynchus of New Holland, and one, possibly two (or even three), of the quadrumana. Under such restrictions,

which seem to be absolutely required by the extent to which our grounds at this point are limited, there would be a coherency and meaning to the collection which it would be difficult to find duplicated elsewhere, and it would be a means of exhibiting the characteristic features of the New England fauna and its relationships not easily accomplished in any other way.

We are constrained to say, however, that the principal difficulty in carrying out even this limited plan is the insufficient surface suitable for such an exhibition. This is nowhere more manifestly true than as regards the ruminants, for within the limits of Long Crouch Woods itself it would be entirely impossible to display in any pleasing or profitable manner those largest forms among our quadrupeds which excite, perhaps, greater interest than any other, — the bison, moose, elk, caribou, deer; for this purpose it is absolutely essential that more ground be had, at least so far as a range is concerned. And this we hope the Commissioners will grant, whenever needed, — perhaps in the ground which has been set apart as a deer-park, in which it would be quite possible, by lines of wire fence practically invisible, to separate such bands as could not be brought into a common enclosure.

2. What has been said thus far relates principally to the terrestrial animals. Another mode of exhibition for the freer-moving, aerial creatures may be advantageously pursued. Thus it might be possible in a series of out-door aviaries, sufficiently large to enclose good-sized trees, to bring together at their proper periods the characteristic summer or winter birds, so that one might see for himself what was the avifauna of New England at any given time. In others might be placed, as a permanent exhibition, such of our native breeding birds as would bear association, where they might find room enough, and suitable places, for all purposes of nesting and bringing up their young. The headlong flight of some birds might prevent their exhibition here. Similar aviaries for the exhibition of birds found in our North Temperate zone west of New England should be placed side by side with those of New England itself; while the exhibition of foreign birds for comparative purposes, limited in the same way as those of the less freely moving vertebrates, would be more naturally disposed in the mode common in foreign gardens.

3. Long Crouch Woods, then, would be *par excellence* a New England exhibit; and such a display would naturally lose much of its interest in the winter time. If, however, we could combine with this a Winter Garden situated in Sargeant's Field, adjoining, cost alone would

prevent it from becoming so attractive as to make it a constant place of resort at all times, and particularly during the colder months of the year. Here, in a large but simple structure of glass and iron, handsome rather in its proportions than through decorative attachments, warmed so as to have a very constant but not too high temperature throughout the winter, one would walk upon the unfrozen ground in a garden where varied and luxuriant vegetable forms would enable him to imagine himself in the midst of the tropics. The loftier vegetation, like the bamboos and certain palms, could be grouped in a higher central portion; while miniature ponds and fountains, reached by winding walks, would everywhere afford special nooks for aquatic or spray-loving plants. We could enliven this still further with a very few of the more brilliant-plumaged birds and songsters in aviaries, aquatic birds on the ponds, and with here and there an enclosure containing some small creature, specially pleasing by its form or attractive by its habits, — a gazelle, a jerboa, perhaps a spider monkey; a chameleon, a Surinam toad, or a garter snake. The possibilities of such a scheme are fascinating; and the structure should be so arranged and situated that extensive additions could be made to it, and that it could be approached directly by conveyance to the door. An ordinary greenhouse would, of course, be necessary as an adjunct of the Winter Garden for forcing plants for ornamental purposes.

4. An Insectary should be built; and both for economic reasons in construction and heating and for the convenient proximity of the necessary food-plants it should be an annex to the greenhouse. Colonies of striking and curious insects, especially the social insects, undergoing their transformations, might be exhibited in a small, single-storied structure of glass and iron, like an ordinary conservatory, with no more flooring than would be required for passageways between the plants and shrubs. Such a collection would be inexpensive and attractive, and, without in any way curtailing its public use, would afford ample opportunity for scientific experimentation of an important kind. Pedigree breeding, for instance, or breeding in constant temperatures, whether high, low, or average, might here be carried on upon a large scale. Indeed, the opportunities are so great that the choice of subjects would be difficult, so many would claim attention; and it would be quite possible to display a changing round of attractive and instructive sights from week to week throughout the year.

The educational use that can be made of these three different divisions of the Natural History Gardens, forming one connected whole, — one

in principle, but varying in details to suit the special needs of each division, and the adaptability of the separate locations, — will undoubtedly meet the requirements of the present, and also give the necessary freedom for enlargement or modification needed by future generations. It will be seen, also, that the New England element enters into each division in varying proportions, as circumstances permit, and to the greatest degree where the objects concerned are more commonly known, being most developed among the higher animals, with which, from their size and their relations to man, the public is more familiar.

The difficulties which surround the whole project, — in many respects so novel as to offer no precedents, wholly new to those on whom the burden of the execution of the plan must fall, — as well as the great expense of the undertaking, have been subjects of long and thorough consideration by the Council. These difficulties account for the delay in replying to the last communication of the Commissioners. Its deliberations have finally brought the Council to the assured conviction that it would be neither feasible nor wise to attempt to begin the three proposed divisions at the same time; and yet it is obvious that the work of the Society in building up the department of Natural History Gardens should not be delayed. Although the sites proposed for the Marine Aquarium and the Fresh Water Aquarium will not be ready for occupation for some time, nevertheless it is the unanimous opinion of the Council that the undertaking should begin with the Marine Aquarium. The proposed site of this division, the less proportionate expenditure for installation and maintenance, and its general interest to the public combine to make it likely that it can be made a financial success, and thus contribute to the foundation and maintenance of the other departments.

In order to meet these difficulties and make a beginning without unnecessary delay, the Council suggests the propriety of starting a temporary Marine Aquarium on grounds already under the control of the Commissioners, and would therefore respectfully inquire of the Park Commissioners whether the establishment of a temporary aquarium at the Marine Park in South Boston would meet with their approval; and if so, what part of the grounds and water-front, now at their disposal, could be allowed the Society for that purpose.

The pumps, piping, and specimens would of course be serviceable for removal to the buildings and grounds of the permanent establishment; and if thought advisable, it might be practicable to construct even the temporary building, so that it could be taken down and rebuilt in another place, or easily removed to a new site.

arden of respectable proportions would require buildings and machinery, and would prove the Society could also begin operations devoted to such uses could be asked for, and the work of exciting public interest in favor of a Fresh Water Aquarium and a Garden, and probably advance with surer steps these two divisions of the Natural History Society. In these considerations the Council of the Boston Society asks the approval of the Park Commissioners, namely, that it shall be allowed to use the land it has raised a third part, more or less, of the proposed sum of two hundred thousand dollars, for equipping a building for a temporary museum, and a land to be granted by the Commissioners, and approximately incorporated with the two hundred acres of land now owned by the Society for the establishment of a garden; but for the present, and as long as the land is to be considered as belonging to an

association, the Council said about buildings in this communication. The Council has decided essential first to settle what we as commissioners in their official capacity, both because of public education, would deem it wise to do in all such undertakings the true basis of the position and teaching of principles. As those who have followed the history of this Society have seen made with due consideration of the localities proposed for the three divisions, and the cost and extent are fully justified by the unequalled facilities the Commissioners for the founding of a museum devoted to the entertainment and instruction of the people, and the parks under their jurisdiction.

For the Council,

J. WALTER FLETCHER

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IN BOARD OF PARK COMMISSIONERS,

January 6, 1890.

Voted, That the Board accedes to the request of the Boston Society of Natural History that it may erect and equip a temporary building for a Marine Aquarium as soon as the Society has raised a third of the two hundred thousand dollars required to be raised by a previous vote of this Board before the Society can obtain the privileges in the Public Parks for its Natural History Gardens.

 WOOD ISLAND PARK.

The Board has adopted a revised plan for laying out Wood Island Park, which will be more economical in construction, and more satisfactory in other respects than the earlier preliminary plan. It is published with this report, and a communication from the Landscape Architects in regard to it follows : —

THE HON. BENJAMIN DEAN, *Chairman of the Board of Park Commissioners* : —

SIR, — The plan originally adopted by the Commission for Wood Island Park was designed with the object of obtaining material for the filling of the area below high-water mark from the higher ground in the Park. The Engineer having reported that, in his opinion, owing to the extreme hardness of the subsoil proposed to be moved, it would cost less to obtain the necessary amount of filling by railroad from the country, a recast of the plan has been made, under which the full present elevation of the site may be retained. In order to accomplish this, the position of the athletic ground has, in the revised plan, been shifted eastward, leaving all of the ridge to be treated as a lawn with groups of trees and shrubs. The Park will thus have a higher degree of landscape beauty, and the view down the harbor, which is to be its chief attraction, will be commanded from a larger part of it.

Respectfully,

F. L. & J. C. OLMSTED,

Landscape Architects Advisory.

Boston, July 19, 1890.

A PARK FOR CHARLESTOWN.

Feb. 1, 1889, the Board received the following order : —

IN BOARD OF ALDERMEN, Jan. 21, 1889.

Ordered, That in view of the rapidly increasing population of the Charlestown District, and the entire absence of any public park or playground in its limits, the Board of Park Commissioners be requested to consider the expediency of acquiring or purchasing the whole or parts of certain lands herein specified, viz., Tuft's Mill Pond, containing about eleven acres, and having a frontage on Alford street of 840 feet; marsh lands of about one hundred acres in Somerville, 700 feet from Charlestown line on Mystic avenue, and opposite convent property, or the lands bounded by Bunker Hill, Quincy, Medford, and North Mead streets. Passed. Sent down for concurrence. Jan. 24, came up concurred. Approved by the Mayor, Jan. 26, 1889.

A hearing was thereupon given, at which a large delegation of citizens of the district, headed by Alderman Stacey, appeared and gave their views, and soon after a visit was made to the sites mentioned in the order. While not at this time expressing a preference for any one of the proposed sites, the Board heartily concurs in the proposition to ask the Legislature for a loan of \$250,000 outside the debt limit for a park for Charlestown, which has lately passed both branches of the City Government:

OPENING OF THE FRANKLIN PARK PLAYSTEAD.

The Board having notified the School Board of its intention of opening the Playstead for the use of the school children, and of its desire that some simple ceremony take place in recognition thereof, to be participated in by the children of the public schools, the School Board appointed a special committee to make all necessary arrangements, and to have charge of the proceedings of the dedication. These consisted of a review and dress-parade by the school regiment,

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PLAYSTEAD—THE DEDICATION.

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to which was attached a band provided by H. M. Whitney, Esq., and a flag-raising, accompanied by a salute by the regiment, with the singing of the "Star-Spangled Banner" and "America" by the school children, followed by a band concert. The West End Street Railway Company furnished free transportation to the pupils of the High and first classes of the Grammar Schools taking part in the ceremony. These came in detachments, carrying banners designating the respective schools, and upon their arrival they were assigned positions on the green by Col. Harrington, the chief marshal, until after the review and parade, when they assembled at the flagstaff for the final exercises. The flag was unfurled by a detachment of sailors from the Navy Yard, and all the proceedings passed off satisfactorily and with much pleasure to those taking part.

The occasion was honored by the presence of the Governor of the Commonwealth, the Mayor of Boston, members of the City Government and the School Board, and other invited guests. A view of the dress-parade is here given. The following circular was issued at the time to parents:—

ROOMS OF THE SCHOOL COMMITTEE,

MASON ST., June 10, 1889.

TO PARENTS, — The playground prepared by the Park Commissioners for the school children of the city of the Grammar School age, is to be dedicated to their use next Wednesday. The School Board has ordered that there shall be no afternoon session of the public schools that day, that there shall be a parade of the School Regiment, and a brief ceremony in which the pupils of the first classes of the Grammar Schools will take part.

The Special Committee of the School Board having charge of the proceedings invite the attention of parents to the following communication of the Park Commissioners.

For the Committee,

THOMAS J. EMERY,

Chairman.

There is to be a flag-raising and a formal opening of the Playstead of Franklin Park next Wednesday afternoon. The Commissioners of the Park hope that many parents will take the occasion to obtain from personal observation some knowledge of what is being prepared for their use in this public property, and they wish, in this circular, to offer them a little information on the subject.

The highest aim of the Commissioners will have been accomplished when this Park shall have been adapted to supply to families living in the city during the summer, in the largest degree that the space permits, opportunities for those benefits which men of wealth seek to provide for their families in extensive private rural retreats. It is desired that it shall offer, especially to women and children, to tired and overwrought men, to the aged, the delicate, to those suffering under nervous strains, and to those enfeebled by illness, as large a measure as is possible of the restful and refreshing influences that townspeople find in rural scenery of a broadly quiet and simply natural character.

It is not possible to maintain such scenery in the outskirts of a great city, and at the same time provide for the comfortable enjoyment of it by multitudes of people, without the use of a great deal that is artificial, and of much contrivance to prevent that which is artificial from being over-conspicuous, incongruous, and from too much drawing off attention from that which is natural. It is not possible to maintain such scenery unless the people of the city are willing to submit themselves to certain constraints that are unnecessary in the actual country where population is sparse. It is essential to the accomplishment of the object that the well-disposed and thoughtful part of the community should cordially accept such constraints, and by willing submission, not merely to the letter, but to the spirit of them, should establish a custom of behavior on the Park which will have a wholesome influence on all who resort to it. A large use of the Park by families, by good women and dutiful children, will accomplish this result. Nothing else will. No laws and no police force will do it. Hence the Commissioners greatly desire to have parents take a lively and intelligent interest in their work, and that they may do so, to have them appreciate its leading purpose.

The ground upon which Franklin Park is to be formed is more than ten times as large as Boston Common. When acquired by the city it mainly consisted of hills and dales, ledges, woods and meadows or cleared fields. From large parts of it views were possible over the tops of woods to wooded hills miles away. The principal aim of the work undertaken by the Commissioners is to make its characteristics in

these respects more marked and effective, and by the introduction of judiciously directed roads, walks, and other conveniences, to lead people in courses by which they will obtain the most enjoyment of the scenery for themselves and interfere least with the enjoyment of it by others. The means taken for this purpose cannot have their intended effect all at once. The first results are necessarily raw and inharmonious. Some little time is needed to reconcile them with nature. But, at the present stage of the work, a considerate observer will readily see the general tendency of the operations.

Grace and breadth of turfy surface is gained through the removal of old causeways, ridges, and walls, the reduction of hillocks, and the partial filling of abrupt depressions; through the cutting out of trees by which broad views were too much obstructed or divided, through the planting of trees and bushes where shade and obscurity would enhance landscape effects, and by giving greater apparent prominence to certain rocks and trees and other natural objects of interest.

There are considerable parts of the Park yet almost untouched by the work, which are naturally in a high degree attractive, and which in their present condition will be found satisfactory places for picnicking of families or of small parties of friends, being shady, dry, with pleasing surroundings and secluded from disturbing circumstances. This being the case, the Commissioners have reflected that lack of opportunity for active play was to no part of the population so great a misfortune as to children from seven to sixteen years of age. There are many thousands of these living in the denser parts of the city to whom such healthful and educative playing as Nature beneficently disposes them to engage in, is possible only on more or less filthy street pavements, with much risk of serious accidents and of trouble to others using them. The play of the smaller children of a family can be more easily regulated by their parents. The larger can be more safely allowed to look out for themselves. With this consideration in view the Commissioners have taken the only considerable piece of nearly level ground of the Park site for their first work, and have prepared it especially for the use of the intermediate class of school children. It is hoped that on school holidays, and especially during the summer vacation, parents will often find it pleasant to take their children of this age with them to the Park, and give them the freedom of this ground, called the Playstead, while they themselves ramble near by in the woods and fields.

It will be the aim of the Commissioners to guard children while on the Playstead from injuring one another, or from interfering with the

pleasure of other visitors to the Park. The structure called the Overlook, the exterior face of which is mainly formed of stones taken off the Playstead, piled up, and to be gradually overgrown and hidden by naturally disposed bushes and vines, will be a good place for parents visiting the Park to see their children on the Playstead; and under the adjoining Shelter, entered by an arch from the Playstead, there will be found drinking-water and places for washing hands, depositing coats, and leaving bats, balls, and croquet or other implements of play.

Except for children, this Park has not been intended to be a place for athletic sports or for any sort of rough and boisterous recreation. Had it been, a site would have been taken for it, upon which a large area of flat surface could be obtained without an excessive amount of costly rock excavation.

Later, it is the Commissioners' intention to prepare a special ground for the recreation of children of tender years; and they have already begun the preparation of another special ground suitable for quiet plays that are most enjoyed by young ladies, such as lawn tennis and croquet. In connection with each of these grounds there will be houses with matrons in charge, toilet and other conveniences.

It is against the law for any one when in the Park to fire guns, crackers, or squibs, to make outcries, orations, or harangues, to hold meetings, move in processions, play hand-organs, peddle any articles, solicit custom or advertise, use vile, profane, or threatening language, and generally to do anything that must disturb, worry, or annoy other visitors. The foliage and flowers that grow on the Park are for the common enjoyment of all where they grow. It is against the law to do anything that would be destructive of them. To pick them for private use is as criminal and as mean as to steal private property.

Parents are earnestly desired to educate their children, and use their influence with others as occasion offers, to obtain respect, not alone for the letter, but for the spirit of the law in these respects, the object being the greatest good of the greatest number, and the establishment of customs in the use of the Park, by a general regard for which only is it possible to make the Park what it is intended to be, — a safe and pleasant resort, especially for that part of the community most needing tranquillizing forms of open-air recreation.

The site of the Park is very rocky, and because it is so the work upon it advances more slowly and at heavier cost than it otherwise would; but the results are correspondingly firm and substantial. Nothing is expended for meretricious ornament or splendor; but it is hoped that

MEL. O'YER PRINTING CO.,

PLAYSTEAD SHELTER.

BOSTON

with time and growth a simple and refreshing landscape beauty will be secured, that to those who are confined during the summer months to the city will be found of great value.

BENJAMIN DEAN,
ISAAC FENNO,
THOMAS L. LIVERMORE,
Commissioners.

ATHLETIC GROUNDS.

Two playgrounds have lately been provided by the City Council. One of these is located on the South Boston Flats, and is leased from the Commonwealth for a short term of years; the other is in Brighton. Neither of these places seems to meet the demand for a large central ground, which could be made, on short notice, a rendezvous for any lawful purpose to which it could be put. Such a ground would meet the requirements for large open-air meetings, lately grown in favor among workingmen, and for friendly games of rivalry at foot and base ball and other athletic sports, and would prevent the constant demands upon Franklin Park for such purposes, for which it is ill adapted, and in the plans for which no provision for them has been made.

A large area of South Bay, now under water, and which, from its having been a receptacle for sewage for many years, is in its present condition a constant nuisance and menace to health, can be purchased or taken by the city at the nominal value of unimproved flats. It is centrally located, easy of approach from all sides by direct avenues, and, when filled, it could by judicious plantations along its borders be made an attractive and inviting spot for all out-door exercises. It would be large enough for a training or parade ground for the militia, and would be within easy marching distance of the new armories.

In the Appendix will be found the City Engineer's report, new statutes relating to public parks, late additions to Park Ordinances, and a compilation of replies received from other cities in answer to inquiries with reference to the use of parks for public meetings.

Respectfully submitted,

BENJAMIN DEAN,
ISAAC FENNO,
THOMAS L. LIVERMORE,
Commissioners.

Boston, January 27, 1890.

APPENDIX.

OFFICE OF CITY ENGINEER,
CITY HALL, BOSTON, Jan. 22, 1890.

HON. BENJAMIN DEAN, *Chairman Board of Park Commissioners*: —

SIR, — I herewith submit the following report of work done and of the matters of interest in connection with the work placed under my direction by your Board, the work being continued under the immediate charge of Assistant Engineer E. W. Howe:—

THE PARKWAY—BACK BAY FENS.

Excavation of Waterway. — The dredger was employed during the early part of the season in completing the work of deepening the channel as described in the last annual report, the site of the proposed bridge at the junction of Audubon Road, and the Fenway has been dredged, and early in October, there being no other work which could be done by the dredger at present, the force was suspended.

On December 17 work was resumed for a few days to excavate the earth dam left by the Sewer Department at the outlet of the new channel for Stony Brook. This work has been finished, and until the channel from the Fen Bridge to Brookline Avenue can be built, there will be nothing for the dredger to do.

Grading of Marsh. — The area of marsh land has been but slightly added to during the year, but considerable work has been done in seeding and sodding the areas previously graded.

Drainage. — Catch-basins have been built in Audubon Road, and drains laid for conveying the water collected by them into the channel.

Roadways and Walks. — During the winter of 1888–89 7,015 tons of stone were purchased for surfacing roads and walks, and a small force of men and teams kept at work operating the crusher and piling the stone. The average cost of the stone delivered at the crusher was 93 cents per ton of 2,000 lbs., and the total cost of the crushed stone, including material, crushing, screening, teaming, depositing in piles, and all other expenses, was \$1.54 per ton. The piles of crushed stone and screenings were also measured, and it was found that the product cost in the piles \$2.05 per cubic yard. On January 30 a contract was made with James J. Vernon, of Lanesville, Mass., for furnishing curbstone for Audubon Road to the Fen Bridge, and for the Fenway from Agassiz Road to and including Huntington Entrance. He delivered under this contract 6,248 lineal feet of curbstone, at \$1.57 per lineal foot.

A contract was also made with S. & R. J. Lombard for furnishing paving blocks, under which there were delivered 70,914 blocks, at \$45 per M.

Seventeen hundred lineal feet of Audubon Road southerly from Agassiz Road have been macadamized, the curbstone set, gutters paved, and the walk bordering the road on its easterly side has been finished; this road has not, however, been open to travel, there being at present no outlet at its southerly end.

In addition to the above, the walk through the Fenside southerly from a point near the easterly end of Agassiz Road has been nearly completed as far as the Stony-Brook gatehouse; and from this point the walk has been sub-graded around the easterly and southerly sides of the basin to the junction of the Fenway and Audubon Road, excepting the portion opposite Huntington Entrance.

The crushed stone, curbstone, and paving blocks required for the completion of the Fenway between Westland and Huntington Entrances and for Huntington Entrance have been purchased, but the work has not been done, the Sewer Department not having yet completed its work at the outlet of the new channel for Stony Brook.

Grading of Slopes, Loaming, and Planting. — The large area

described in the last annual report as graded has been planted, and nearly four acres in addition prepared for planting.

The foundations for the bridge over the outlet of the new channel for Stony Brook has been completed by the Sewer Department, but the superstructure is yet to be built.

The following table gives the principal items of work completed to date : —

				Per cent. of whole.
Channel, excavated	.	.	1,148,000 sq. ft. .	90
Shore, completed	.	.	23,000 lin. ft. .	82
Marsh, “	.	.	828,000 sq. ft. .	99
Driveway, “	.	.	46,500 sq. yds. .	52
Walks, “	.	.	19,100 “ .	37
Ride, “	.	.	3,000 “ .	23
Curbing, “	.	.	22,100 lin. ft. .	59
Gutters	.	.	10,200 sq. yds. .	53
Area covered with loam	.	.	867,000 sq. ft. .	63
Area planted	.	.	711,000 “ “ .	52
Boundary fence	.	.	4,000 lin. ft. .	26
Drains laid	.	.	5,545 “ “	
Catch-basins	.	.	65	
Manholes	.	.	6	

Much work besides that included in the table has been but partially completed, and cannot yet be classified.

A considerable force has also been employed through the year in the care of the plantations, roads, walks, etc.

ARNOLD ARBORETUM.

The spring, or well, at the foot of Bussey Hill has been covered, and the ground about it graded. On Sept. 19 work was begun on the grading of the driveway leading from the present road to the Walter-Street Entrance, and the work is now in progress. One of the culverts over the brook has been built. The other work done during the year has been that required for the care of the roads and of the plantations on the city's reservation at the summit of Bussey Hill.

FRANKLIN PARK.

Drives and Walks. — During the year the Old Trail Road, from Seaver Street, opposite Humboldt Avenue, to the westerly end of the Greeting, and the adjacent walks have been completed.

Glen Lane has been completed from Glen Road to a point 300 feet beyond the valley gate, and for 600 feet further has been sub-graded.

The circuit drive has been completed from the valley-gate Entrance to near the corner of Walnut and Ellicott Streets, and the walks in its vicinity are nearly finished. The walks in the rear of the Playstead Shelter have been completed. About 1,200 lineal feet of the Loop Road in the Wilderness has been sub-graded, and a portion of it covered with stone. Work is now in progress sub-grading the drive from the present terminus of the circuit drive to the top of Scarboro Hill.

Playstead Shelter and Green. — A spring near the junction of the Playstead Road and the Greeting has been preserved and carried by a pipe across the road to a rustic fountain or covered pool, where it furnishes a continuous flow of good drinking-water. A flag and pennant were purchased for the large flagstaff, and the pennant has been displayed on every pleasant day except Sundays and holidays, when the ensign has been shown.

Gateways. — The valley gate, at the entrance to the Country Park, from the Playstead district, has been completed in accordance with the description given in the last annual report.

Boundary Wall for the Country Park. — A wall has been built along the southerly side of Glen Road and of Glen Lane from the westerly boundary of the Park to a point on Glen Lane about 900 feet east of the valley gate.

Ellicott Arch. — This bridge, which is a brick masonry arch, 71 feet in length, 17.5 feet in span, and 15 feet in height above the walk, has been completed. The ends of the arch and the adjoining retaining walls are of rustic masonry, built of field stone found in the vicinity. Arched recesses were constructed along the sides, in which seats are to be placed.

Ellicottdale. — This ground was generally a rocky swamp, and its treatment involved a large amount of labor; hundreds of boulders had to be broken and removed, and nearly the whole area required to be sub-drained; much of the ground also needed grading in order to make it suitable for its intended use. This work, with the exception of ploughing and seeding, has been nearly finished.

Drainage of Nazingdale. — About two-fifths of the whole Park is included in one drainage area, the outlet for which is through a culvert under Canterbury Street. At the head of this drainage area is the easterly portion of the Playstead and a part of Long Crouch Woods. Consequently a main drain extending through the valley would be nearly a mile in length, and at its lower end would be about five feet in diameter. It had been thought that the summer flow of water from the valley would be so slight that an open channel or brook would be unsightly in dry weather, but the expense of a covered drain being so great it was determined to make an open channel through the lower part of the valley. This channel has been treated so as to have the appearance of a natural brook, and work upon it is nearly finished. At the lower part of the valley a temporary dam has been built, which floods about three acres of ground for a small skating pond. The covered drain ends at a point about fifty feet south of the old location of Williams Street, and above this point the main drain, with the exception of about 150 feet, has been completed as far as the Old Trail Road.

The following table gives the principal items of work completed to date, but it does not include all the work done, a large amount of labor and materials having been expended on work which has not been sufficiently finished to admit of classification: —

Driveways completed	.	.	.	45,000 sq. yds., or $2\frac{3}{4}$ miles.
Walks completed	.	.	.	27,500 sq. yds., or $3\frac{3}{4}$ miles.
Gutters paved	.	.	.	8,600 sq. yds.
Curbstone set	.	.	.	2,700 lin. ft.
6-in. water-pipe laid	.	.	.	3,000 “
Hydrants	.	.	.	6

Drinking-fountains	5
Bridge	1
Boundary wall	2,700 lin. ft.
2 ft. 9 in. brick drain	450 "
2 ft. X 2 ft. 6 in. brick drain . .	180 "
2-ft. brick drain	769 "
18-in. pipe drain	1,860 "
15-in. pipe drain	2,239 "
12-in. pipe drain	1,351 "
10-in. pipe drain	1,134 "
8-in. pipe drain	4,787 "
4-in. pipe drain	190 "
4-in. agricultural tile drain . . .	2,100 "
3-in. agricultural tile drain . . .	2,420 "
2-in. agricultural tile drain . . .	24,613 "
Total drain	42,093 "
Manholes	27
Catch-basins and inlets	80
Open channel for brook	2,300 lin. ft.
Area of ground graded and planted, or seeded	62 acres.

There have also been roughly graded or sub-graded about 3,300 lineal feet of driveway.

MARINE PARK.

Iron Pier. — The four spans contracted for Oct. 20, 1888, have been completed, and this addition to the pier was opened to the public on August 29. One other span to connect the iron pier with the pier-head has been contracted for, and will be put in place as soon as the work on the pier-head is sufficiently advanced.

Pier-Head. — On March 23 a contract was made with Joseph E. White for the construction of the pier-head, and this work is now in progress. The structure consists of an island somewhat pear-shaped in plan, built of gravel, with its outer line protected

by a sloping wall of ballast and rip-rap, surmounted by a parapet of cut granite.

At the side towards the iron pier there is an abutment of masonry laid in cement mortar, and in the centre a circular wall has been built to serve as a foundation for an iron structure. The grade of the surface of the pier-head is to be about fifteen feet above city-base. This artificial island is filled on a mud foundation, and consequently there will be more or less settlement for several years.

Filling. — October 5 a contract was made for furnishing 200,000 cubic yards of filling to grade the southerly portion of the Park. About 25,000 cubic yards have been deposited to date.

WOOD ISLAND PARK.

On September 19 the excavation of the site of the proposed playground and the grading of the concourse near the bridge over the railroad was commenced, and this work is now in progress.

CHARLESBANK.

Plantations. — The entire area of the Park, excepting the walks and gymnastic grounds, has been planted during the past season.

Lamps. — Gas-lamps have been placed along the river wall, and since July 28 they have been lighted at night.

Buildings. — The old brick building which was used for a temporary office has been removed, and a new building near the northerly boat-landing has been constructed by W. H. Keyes & Co., under the direction of the City Architect. The building is twenty feet by fifty feet on the ground, and is two stories in height. The lower story contains offices for the police and foreman, store-rooms for tools, etc., and a room for the use of the boat-keeper. The upper story is divided into two rooms, one of which contains water-closets, urinals, and lavatories, and the other is the entrance to the gymnastic ground, and is provided with boxes for clothing.

This room is connected with the gymnastic ground by a bridge over the walk and bicycle track, with stairs from its outer end leading to the ground, and the only entrance to and exit from the

gymnastic ground is through turnstiles at the entrance to the bridge.

Gymnastic Ground. — The gymnastic ground was opened to the public on August 27. This ground has been provided with apparatus consisting of 2 sheds, with 10 sets of chest weights in each, 2 giant stride poles, 12 sets of horizontal bars, 8 sets of parallel bars, 6 jumping-boxes, 7 sets of boxes for quoit pitching, hammer and shot throwing, and two large frames, each 160 feet long, to which are attached swings, trapezes, ropes and poles for climbing, ladders, flying-rings, etc. Around the outside of the ground there is a running and bicycle track 15 feet wide and one-fifth of a mile long. The apparatus was designed and furnished by D. A. Sargent, M.D., Professor of Physical Culture of Harvard University. Two drinking-fountains have been erected within the enclosure. The grounds at the southerly end of the Park have been re-arranged to conform to a new plan for a girls' gymnasium and children's playground.

Muddy-River and Stony-Brook Covered Channels. — These remain in the same condition as described in the last annual report.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

PARKS AND PUBLIC MEETINGS.

As it has been several times publicly stated that Boston is the only city which declines to allow its parks to be used as places for public meetings, an inquiry has been addressed to the authorities of a number of American cities, of the returns from which, as far as received, the following is a compilation : —

Philadelphia. — “ Up to last summer all meetings gathered by advertisement or otherwise were refused permission to use any part of the Park. An exception, however, was made last summer in the case of the Evangelical Alliance Association, who were granted permission to hold religious services in a secluded portion of the Park on Sunday afternoons. The same permission was also granted this year.”

South Park, Chicago. — “ In regard to public meetings and addresses in parks, would say that such public meetings or addresses, liable to draw crowds, are not allowed in the parks or on the promenades under control of the Board. All means are used to give the public a chance for recreation, such as picnics, ball-games, tennis, etc. But no public meeting or speech-making is permitted.”

West-Side Park, Chicago. — “ The Park Commissioners have never allowed any large gathering of people in the West-Side Park, for the purpose mentioned.”

Brooklyn, N. Y. — “ The only public gathering allowed in the parks is the celebration of what is known as ‘ Anniversary Day,’ which is a parade of all the Sunday-school children.”

St. Louis, Mo. — “ No public meetings except picnics are allowed in our parks.” Chapter 33, of the Revised Ordinance of the city, reads : “ No person . . . shall deliver any oration, address, speech, or lecture ” in the public parks.

Chicago. — “ Under no circumstances are public meetings of either religious, political, or other character allowed within the Park (Lincoln). I am not aware that public meetings are allowed in

either the South or West Park. The Common, on the Lake front, is in charge of the city, and meetings were formerly held there, but not since the Haymarket tragedy."

Minneapolis. — "We have never allowed public meetings in our parks."

Buffalo. — "Our ordinances provide that 'no person shall make any oration or harangue in any park or parkway without permission in writing of the Park Board.' No such permission has ever been granted."

Hartford. — "We have invariably refused to allow our Park to be used by labor unions, or for religious meetings, etc., as they are foreign to the purpose for which the Park was established."

Bridgeport. — "It has not been the custom of the Park Commission to permit such public meetings as you refer to in our city parks. Concerts, school and other picnics, under proper restrictions, memorial exercises at the soldiers' monument, are, of course, among the public gatherings allowed and encouraged."

San Francisco. — The ordinance reads as follows: "Sect. 6. No public meeting and no public discussion or debate shall be held within the limit of said parks, avenues, and grounds."

New York. — Nothing has been received from New York, but it is believed that the ordinance of the Boston Park Commission in respect to the matter follows that of New York; and it is known that permission to hold meetings in the parks has repeatedly been declined.

Washington. — Public gatherings of all kinds are forbidden, by an Act of Congress, in the Park of the Capitol, except with the express written permission of the President of the Senate and the Speaker of the House of Representatives. Such permission has never been given except for a meeting to be addressed by the President of the United States on the occasion of his taking the oath of office, and for such meeting a large paved space has been prepared, which is separated by a massive stone wall from the turf and trees of the Park.

**STATUTES OF THE COMMONWEALTH CONCERNING
PUBLIC PARKS.**

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 129.]

In the Year One Thousand Eight Hundred and Eighty-nine.

**AN ACT RELATING TO BUILDINGS IN THE PUBLIC PARKS OF
THE CITY OF BOSTON.**

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The park commissioners of the city of Boston may erect in the parks of said city that now are or hereafter may be under their control, except the common, public garden and public squares, structures for the shelter and refreshment of persons frequenting such parks and for other park purposes, of such materials and in such places as in the opinion of the fire commissioners of said city do not endanger buildings beyond the limits of the park. Section sixteen of chapter fifty-four of the Public Statutes, and chapter three hundred and seventy-four of the acts of the year eighteen hundred and eighty-five shall not apply to such buildings.

SECT. 2. This act shall take effect upon its passage.

(Approved March 19, 1889.)

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 438.]

In the Year One Thousand Eight Hundred and Eighty-nine.

**AN ACT TO AUTHORIZE THE ENLARGEMENT OF THE PRO-
POSED MARINE PARK IN THE CITY OF BOSTON.**

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:—*

SECTION 1. The board of park commissioners of the city of Boston, subject to the provisions of chapter nineteen of the Public

Statutes, excepting so much of section sixteen of said chapter as requires the payment into the treasury of compensation for the rights and privileges hereby granted in land of the Commonwealth, may make such excavation and filling and erect and maintain such structures in and over the area of tide-water at or near Dorchester point in South Boston which lies east of the westerly line of Q street, extending southerly into old harbor, and northerly to the southerly line of the reserved channel as established by the board of harbor and land commissioners and approved by the governor and council under chapter forty-six of the resolves of the year eighteen hundred and eighty-six, and south of the said southerly line of said reserved channel as the said board may deem necessary or desirable for the purposes of a public park, in accordance with the provisions of chapter one hundred and eighty-five of the acts of the year eighteen hundred and seventy-five.

SECT. 2. All lands of the Commonwealth which are occupied or enclosed under the provisions of this act shall be appropriated to and used solely for the purposes of a public park.

SECT. 3. This act shall take effect upon its passage.

(Approved June 7, 1889.)

PARK ORDINANCES.

IN BOARD OF PARK COMMISSIONERS, Aug. 9, 1889.

Voted, That the following rules, under the title of Ordinances, be adopted for the use and government of Charlesbank.

The Board of Park Commissioners for the City of Boston, by virtue of its authority to make rules for the use and government of the Public Parks of said city, and for breaches of such rules to affix penalties, hereby ordains that within the limits of Charlesbank, except with the prior consent of the Board, it is forbidden : —

1. To cut, break, injure, deface, defile, or ill-use any building, fence, or other construction, or any tree, bush, plant, or turf, or any other thing or property of said city.
2. To have possession of any freshly plucked tree, bush, or plant, or portion thereof.
3. To throw stones, balls, or other missiles ; to discharge or carry fire-arms, fire-crackers, torpedoes, or fire-works ; to make fires ; to play musical instruments ; to have any intoxicating beverages ; to sell, offer or expose for sale, any goods or wares ; to post or display signs, placards, flags, or advertising devices ; to solicit subscriptions or contributions ; to play games of chance, or have possession of instruments of gambling ; to make orations, harangues, or loud outcries ; to enter into political canvassing of any kind ; to utter profane, threatening, abusive, or indecent language, or to do any obscene or indecent act ; to bathe or fish ; to solicit the acquaintance of, or follow, or otherwise annoy other visitors.
4. To allow animals of any kind to pass over or stray upon the Park lands, provided that this shall not apply to dogs when closely led by a cord or chain not more than six feet long.
5. To move in military or civic parades, drills or processions.
6. To walk on any part of the property except the prepared walks.

7. To refuse to obey the orders or requests of either of the Commissioners, or of the Park Police, or other agents of the Commissioners, and to refuse to assist them when required.

Any person wilfully doing either of the things above forbidden, shall be punished by fine not exceeding twenty dollars.

Compliance with the foregoing regulations is a condition of the use of these premises.

Voted, That the following rules, under the title of Regulations, be adopted for the use and government of the Charlesbank Gymnasium.

1. The Superintendent is responsible for the maintenance of order and decorum, and for the exercise of discretion and civility in all use to be made of the gymnasium. His authority corresponds with his responsibility. No one is to enter the gymnasium when forbidden by him; no one to remain in it when desired by him to leave. Report may be made to the Park Commissioners whenever the Superintendent is thought to have used his authority unjustly, but his authority is not to be resisted or impugned by visitors on the ground.

2. No one is to occupy the gymnasium except while making use of some of its apparatus for exercise, or while waiting opportunity to do so, or for a reasonable breathing time between exercises.

3. No part of the person usually clothed within doors, is to be exposed while in the gymnasium.

4. No person is to use any piece of the apparatus to the exclusion of another person beyond a reasonable time. In cases of dispute the Superintendent will decide what is a reasonable time.

5. No person is to engage in dangerous exercises. If the Superintendent judges any form of exercise by any person to be dangerous, it is to be so considered and refrained from by that person.

6. No part of the apparatus is to be put to other than its proper use, or to be used with excessive violence.

7. In any use of the track, the right side of the person is to be kept toward the fence.

8. Shots, hammers, quoits, and poles, after any use of them, are to be placed by their users in the boxes and racks provided for them.

9. Persons not engaged in putting the shot or hammer are to avoid the ground assigned to those who are so engaged.

10. Wheelmen will have the right to use the track during the forenoon of each day; runners, during the afternoon. But, with permission of the Superintendent, runners can use it when it is not wanted for wheeling in the forenoon, and wheelmen can use it when it is not wanted by runners in the afternoon.

The regulations above recited for the use of the Charlesbank Gymnasium are hereby made ordinances of the Department of Parks. All offending against them will be subject to a fine not exceeding twenty dollars, and will forfeit their right to the use of the ground for the season.

City of Boston.
DEPARTMENT OF PARKS.

SIXTEENTH ANNUAL REPORT
OF THE
BOARD OF COMMISSIONERS
FOR THE
YEAR 1890.

WITH THE COMPLIMENTS OF

THOMAS L. LIVERMORE,
ISAAC FENNO,
FRANCIS A. WALKER,

COMMISSIONERS OF PARKS.

PRINTED FOR THE DEPARTMENT.
1891.

City of Boston.
DEPARTMENT OF PARKS.

SIXTEENTH ANNUAL REPORT
OF THE
BOARD OF COMMISSIONERS
FOR THE
YEAR 1890.



PRINTED FOR THE DEPARTMENT.
1891.

PRESS OF
ROCKWELL & CHURCHILL,
BOSTON.

DEPARTMENT OF PARKS.

REPORT.

HON. NATHAN MATTHEWS, JR.,
Mayor of the City of Boston:—

SIR, — In accordance with the City Ordinances, and with Section 15 of the Act of 1875, Chapter 185, entitled "An Act for the laying out of Public Parks in or near the City of Boston," the undersigned, the Board of Park Commissioners, submit the following report of their doings for the preceding year, including a detailed statement of all their receipts and expenditures : —

FINANCIAL STATEMENTS.

I.

Receipts and Expenditures of the Department for the Year 1890.

THE PARKWAY.

LAND ACCOUNT.

BACK BAY FENS.

Amount transferred from loan for Public Park Lands	.	.	\$58,848 40
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Expenditures.

Amount paid for land in 1890	\$58,848 40
------------------------------	---	---	---	---	---	---	-------------

MUDDY RIVER.

Balance unexpended, Dec. 31, 1889	\$38,359 64	
Amount transferred from loan for Public Park		
Lands	24,831 79	
	<hr/>	<u>\$58,191 43</u>

Expenditures.

Amount paid for land in 1890	\$52,594 54	
Surveying	675 93	
Balance unexpended, Dec. 31, 1890	4,920 96	
	<hr/>	<u>\$58,191 43</u>

OLD HARBOR.

Amount transferred from loan for Public Park Lands	\$36,679 50
--	-------------

Expenditures.

Amount paid for land in 1890	\$35,228 50	
Amount paid for surveying and appraising lands	1,451 00	
	<hr/>	<u>\$36,679 50</u>

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$66,616 87	
Amount transferred from Appropriation for Main-		
tenance	12,631 60	
	<hr/>	<u>\$79,248 47</u>

EXPENDITURES FOR CONSTRUCTION.

BACK BAY FENS.

Excavating, Grading, Loam, and General Work.

Dredging: labor and mate-	
rials	\$11,516 03
Grading: labor and materials,	8,382 24
Superintendence and general	
work	5,084 99
Amount paid under contract	
for grading	2,658 57
Engineering expenses	1,366 05
Loam: labor and materials	1,214 10
Fence: labor and materials	54 88
	<hr/>
	\$30,276 86
<i>Amount carried forward,</i>	<u>\$30,276 86</u>

Amount brought forward, \$30,276 86

Roadways, Sidewalks, Gutters, and Drainage.

Roadways: labor and materials	\$8,338 15	
Curbs and walks: labor and materials	1,328 82	
Gutters: labor and materials,	1,290 00	
Drainage: labor and materials	1,023 77	
	<hr/>	11,980 74

Filling.

Amount paid under contract for filling	\$9,723 55	
Advertising	105 71	
	<hr/>	9,829 26

Plantations.

Labor and expenses	5,252 56
------------------------------	----------

Commonwealth Avenue.

Labor regrading mounds	3,296 27
----------------------------------	----------

Covered Channel, Stony Brook.

Labor and materials	1,914 85
-------------------------------	----------

Plans and Designs.

F. L. & J. C. Olmsted, Landscape Architects, and expenses	1,050 76
---	----------

Settees.

Settees and freight	266 72
-------------------------------	--------

Water Supply.

Water-pipes and labor	240 80
---------------------------------	--------

Live Stock.

Water-fowl	84 80
----------------------	-------

Fen Bridge.

Advertising	48 58
-----------------------	-------

Machinery, Tools, and Implements.

Engine brakes	37 50	
	<hr/>	\$64,279 70

<i>Amount carried forward,</i>	<hr/>	\$64,279 70
--------------------------------	-------	-------------

Amount brought forward, \$64,279 70

MUDDY RIVER.

Excavating, Grading, Loam, and General Work.

Amount paid under contracts for grad-		
ing	\$1,518 40	
Engineers and expenses	818 77	
		2,337 17
		\$66,616 87

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and ex-		
penses	\$9,731 13	
Repairs of covered channel		
Stony Brook and Gate-		
House	32 10	
Signs and notices	24 00	
		\$9,787 23

Park Police.

Pay of Park Keepers	\$2,386 17	
Pay of Sub-Keepers	389 90	
Police equipments and sup-		
plies	68 30	
		2,844 37
		12,631 60
		\$79,248 47

ARNOLD ARBORETUM.

LAND ACCOUNT.

Amount transferred from loan for Public Park Lands	\$4,000 00

Expenditures.

Amount paid for land in 1890	\$4,000 00

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park	
Construction	\$16,112 19
Amount transferred from Appropriation for Main-	
tenance	3,452 48
	\$19,564 67

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Expenses of construction, labor, etc. .	\$8,947 12	
Amount paid under contract for grading, .	3,333 26	
Culverts: labor and materials . . .	1,069 15	
Drainage	950 00	
Engineer's expenses	341 02	
Materials of construction, freight, etc. .	270 98	
Advertising	82 96	
Fuel, supplies, carting, etc.	47 59	
	<hr/>	\$15,042 08

Plans and Designs.

Landscape Architects and expenses . . .	1,070 11	
	<hr/>	\$16,112 19

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers . . .	\$2,102 31	
Police equipments and supplies	4 47	
	<hr/>	\$2,106 78

Care of Grounds and Buildings.

Watchmen, labor, and expenses . . .	1,345 70	
	<hr/>	3,452 48
		<hr/>
		\$19,564 67

FRANKLIN PARK.

LAND ACCOUNT.

Amount transferred from loan for Public Park land	\$36,429 65	
Appropriated. by Miscellaneous Loan Order, Oct. 17, 1890	14,000 00	
	<hr/>	\$50,429 65

Expenditures.

Amount paid for land in 1890	\$50,429 65
--	-------------

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction	\$240,369 49	
Amount transferred from Appropriation for Maintenance	21,096 25	
	<hr/>	\$261,465 74

EXPENDITURES FOR CONSTRUCTION.

Driveways.

Grading roads . . .	\$53,711 45
Surfacing roads . . .	46,253 75
Paving-blocks . . .	8,485 08
Paving	1,776 99
Curbs and gutters . . .	202 85
	<hr/> \$110,480 12

Clearing and Grading Grounds, Drainage, and General Work.

Drainage	\$21,528 08
Grading grounds	31,526 03
Clearing grounds	9,981 69
Engineer's assistants and ex- penses	8,311 67
Superintendence and general work	7,370 20
Damages, for injury to la- borer	44 00
	<hr/> 78,761 67

Plantations.

Labor and expenses	13,995 37
----------------------------	-----------

Arbor, Schoolmaster Hill.

Labor and materials	13,967 25
-----------------------------	-----------

Ellicottdale.

Labor and materials	7,094 43
-----------------------------	----------

Park Wall and Gateways.

Materials, labor, and expenses . . .	4,670 88
--------------------------------------	----------

Machinery, Tools, and Implements.

Steam road-roller, etc.	4,063 50
---------------------------------	----------

Concourse, Scarboro' Hill.

Labor and materials	3,569 80
-----------------------------	----------

Plans and Designs.

Landscape architects and expenses . .	1,692 55
---------------------------------------	----------

Amount carried forward, \$238,245 57

<i>Amount brought forward,</i>	\$238,245 57	
<i>Structures.</i>		
Settees	\$511 17	
The Shelter, plumbing, furnishing, etc.	250 48	
Sheep-fold	57 91	
	<hr/>	819 56
<i>Water Supply.</i>		
Water-pipes and labor	490 58	
<i>Ellicott Arch.</i>		
Materials, labor, and expenses	489 70	
<i>Fountains.</i>		
Materials, labor, and expenses	255 93	
<i>Live Stock.</i>		
Peafowl and pigeons	61 00	
<i>Playstead Green.</i>		
Labor and materials	7 15	
	<hr/>	\$240,369 49

EXPENDITURES FOR MAINTENANCE.

<i>Care of Grounds and Buildings.</i>		
Labor and expenses	\$10,542 58	
Signs and notices	239 59	
	<hr/>	\$10,782 17
<i>Park Police.</i>		
Pay of Park Keepers	\$6,161 11	
Pay of Sub-Keepers	3,730 05	
Equipments and supplies	422 92	
	<hr/>	10,314 08
		<hr/>
		21,096 25
		<hr/>
		\$261,465 74

CHARLESBANK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$5,837 72	
Amount transferred from Appropriation for Maintenance		
	9,188 03	
	<hr/>	\$15,025 75

EXPENDITURES FOR CONSTRUCTION.

Plantations.

Labor \$3,208 34

Gymnastic Grounds, Grading, and General Work.

Women's gymnastic apparatus \$1,225 50

Women's gymnasium grounds:

Labor and expenses 203 07

General work 147 90

Men's gymnastic apparatus 132 37

Men's gymnasium grounds:

Labor and expenses 64 35

Grading, labor 28 85

Engineering expenses 7 87

1,809 91

Iron Railing and Fence.

Iron gates and fittings for

boat-landing \$400 00

Flagstaff 17 60

417 60

Plans and Designs.

Plans for Lavatory Building for Women, 169 47

Structures.

Advertising contract for Women's Lava-

tory Building 109 60

Water Supply.

Fountains, and labor on water-pipes 69 70

Walks and Drainage.

Labor on walks \$46 80

Drainage 6 30

53 10

\$5,837 72

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Labor and expenses \$5,939 95

Amounts carried forward,

5,939 95

\$5,837 72

Amounts brought forward, \$5,939 95 \$5,837 72

Park Police.

Pay of Park Keepers . . .	\$3,064 55		
Pay of Sub-Keepers . . .	157 64		
Police equipments and supplies	25 89		
	<u>3,248 08</u>		
		9,188 03	
		<u>\$15,025 75</u>	

MARINE PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$151,646 13	
Amount transferred from Appropriation for Maintenance	4,751 50	
	<u>\$156,397 63</u>	

EXPENDITURES FOR CONSTRUCTION.

Filling, Grading, and General Work.

Amount paid under contracts with Jos. E. White, and Perkins & White, for filling	\$123,928 68
General work	446 34
Grading	201 30
Advertising filling contract	149 38
	<u>\$124,725 70</u>

Structures.

Amount paid under contract with Jos. E. White, for pier-head	\$20,910 66
Inspection and engineering expenses	2,917 39
Amount paid under contract with Shailer and Schniglau, for iron pier	2,065 00
Advertising pier-head contract	17 40
	<u>25,910 45</u>
<i>Amount carried forward,</i>	<u>\$150,636 15</u>

Amount brought forward, \$150,636 15

Plans and Designs.

Landscape Architects and expenses	. 1,009 98	
	————	\$151,646 13

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and ex-	
penses	\$3,475 61
Damages	175 37
Signs and notices	15 00
	<hr/> \$3,665 98

Park Police.

Pay of Park Keepers . . .	\$1,081 05		
Police equipment and sup- plies	4 47		
	<u>1,085 52</u>		
		<u>4,751 50</u>	
			<u>\$156,397 63</u>

WOOD ISLAND PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . \$24,958 34

EXPENDITURES FOR CONSTRUCTION.

Grading, Loam, and General Work.

Grading: labor and materials . . .	\$19,837 14
Drainage	1,805 67
Engineering expenses	415 80
Superintendence and general work .	187 50
	<hr/>
	\$22,246 11

Plantations.

Labor and expenses	2,696 03
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Plans and Designs.

Landscape Architects and expenses	16 20	
	<u> </u>	\$24,958 34

DEPARTMENT APPROPRIATION.

Balance unexpended Dec. 31, 1889	.	.	.	\$3,124 89
Amount transferred from Appropriation for Main-				
tenance	.	.	.	3,961 00
				<u>7,085 89</u>

GENERAL ACCOUNT.*Expenditures.*

Salary of Secretary and Clerk	\$3,000 00	
Clerical service at office	1,800 00	
Printing annual report, etc.	1,101 14	
Surveying Muddy River lands	786 46	
Telephone and messenger service and incidental expenses	296 22	
Stationery	86 07	
Coach-hire	16 00	
	<hr/>	<u>\$7,085 89</u>

PARK NURSERY.

Balance unexpended Dec. 31, 1889	<u>\$1,648 99</u>
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Expenditures.

Labor	\$1,615 45	
Expenses in care of propagating-house and nursery,	2 99	
Balance merging at end of financial year	30 55	
	<hr/>	<u>\$1,648 99</u>

APPROPRIATION FOR MAINTENANCE.

Balance unexpended Dec. 31, 1889	\$635 52	
Appropriation for the financial year 1890-91	56,500 00	
Amount transferred from Income Account	7,817 07	
Amount transferred by City Council orders	2,836 52	
	<hr/>	<u>\$67,789 11</u>

Expenditures.

Paid on account of Franklin Park	\$21,096 25	
Paid on account of Parkway	12,631 60	
Paid on account of Charlesbank	9,188 03	
Paid on account of Marine Park	4,751 50	
Paid on account of Park Department	3,961 00	
Paid on account of Arnold Arboretum	3,452 48	
Balance unexpended Dec. 31, 1890	12,708 25	
	<hr/>	<u>\$67,789 11</u>

INCOME.*Receipts.*

Balance remaining Dec. 31, 1889	\$6,929 34	
Received from premium on loans	54,136 00	
Received from rents and sale of buildings, grass, wood, etc.	7,254 10	
	<hr/>	<u>\$68,319 44</u>

Payments.

Premium on loans paid into Public Park Sinking Fund	\$45,596 00	
Premium on loans carried to Special Loans Sinking Fund	8,540 00	
Transferred to Park Maintenance	7,817 07	
Income carried to General City Income	801 13	
Balance remaining Dec. 31, 1890	5,565 24	
		<u>\$68,319 44</u>

PUBLIC PARK LANDS.

(Previously acquired.)

Balance unexpended Dec. 31, 1889	\$36,591 17	
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Expenditures.

Paid on account of Franklin Park	\$36,429 65	
Balance unexpended Dec. 31, 1890	161 52	
		<u>\$36,591 17</u>

PUBLIC PARK LANDS.

(Additional.)

Public Park Loan, issued March 7, 1890	\$600,000 00	
Received from the Town of Brookline	20,000 00	
		<u>\$620,000 00</u>

Expenditures.

Paid on account of Parkway, Back Bay Fens	\$53,848 40	
Paid on account of Parkway, Old Harbor	36,679 50	
Paid on account of Parkway, Muddy River	24,831 79	
Paid on account of Arnold Arboretum	4,000 00	
Balance unexpended Dec. 31, 1890	500,640 31	
		<u>\$620,000 00</u>

PUBLIC PARK, CHARLESTOWN.

Public Park Loan, issued Nov. 1, 1890	\$200,000 00	
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No payments were made on this account in 1890.

PUBLIC PARK CONSTRUCTION.

Balance unexpended Dec. 31, 1889	\$42,698 78	
Public Park Construction Loan, issued in 1890	500,000 00	
		<u>\$542,698 78</u>

Expenditures.

Paid on account of Franklin Park	\$240,369 49	
Paid on account of Marine Park	151,646 13	
Paid on account of Parkway	66,616 87	
Paid on account of Wood Island Park	24,958 34	
Paid on account of Arnold Arboretum	16,112 19	
Paid on account of Charlesbank	5,837 72	
Balance unexpended Dec. 31, 1890	37,158 04	
		<u>\$542,698 78</u>

II.

Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Dec. 31, 1890.

PARKWAY CONSTRUCTION.

BACK BAY FENS.

Receipts.

From appropriations for Back Bay Fens	\$1,082,179 39	
From loan for Public Park Construction	503,798 76	
From appropriations for Park Department	22,868 85	
From Income Account	3,449 41	
	<hr/>	\$1,612,296 41

Expenditures.

Filling	\$494,212 89	
Excavating, grading, loam, and general work	446,564 42	
Roadways, sidewalks, gutters, and drainage	211,287 69	
Retaining-walls, curb, and fence	107,284 71	
Boylston bridge	92,011 43	
Beacon entrance bridge (Charlesgate West)	56,675 79	
Agassiz bridge	48,398 95	
Plantations	51,890 63	
Railroad bridge	39,995 04	
Plans and designs	24,743 65	
Office and general expenses	14,114 92	
Machinery, tools, etc.	18,797 11	
Surveying	5,472 16	
Commonwealth Avenue mounds	3,296 27	
Stony Brook channel	1,914 85	
Water supply, settees, and live stock	592 32	
Fen bridge	48 58	
	<hr/>	\$1,612,296 41

MUDDY RIVER.

Receipts.

From appropriations for Muddy River Improvement	\$4,000 00	
From loan for Public Park Construction	2,706 18	
	<hr/>	\$6,706 18

Expenditures.

Surveys, plans, and designs	\$4,310 71	
Grading	1,518 40	
Engineers and expenses	818 77	
Gate-house	58 30	
	<hr/>	\$6,706 18

III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Dec. 31,
1890.*

PUBLIC PARK LANDS, CONSTRUCTION AND MAINTENANCE.

RECEIPTS.

Public Park Loan for lands, less balances	
merged	\$3,683,791 73
Public Park Construction Loan	2,000,000 00
Appropriations, less transfers, merged balances, .	
and betterment expenses	1,678,917 46
Income appropriated to maintenance	66,808 78
From Town of Brookline, for land	20,000 00
From Miscellaneous Loan, for land	14,000 00
	<hr/>
	\$7,463,517 97

DISBURSEMENTS.

Land.

Franklin Park	\$1,474,296 64
The Parkway	815,980 57
Charlesbank	370,886 45
Marine Park	232,972 57
Arnold Arboretum	83,932 71
Wood Island Park	50,000 00
	<hr/>
	\$3,028,068 94

Construction.

The Parkway	\$1,619,002 59
Franklin Park	897,967 78
Marine Park	425,391 00
Charlesbank	259,345 38
Arnold Arboretum	119,341 21
Wood Island Park	98,998 72
General Account	59,553 64
Park Nursery	29,947 07
	<hr/>
	3,509,547 39

Maintenance.

Franklin Park	\$75,234 03
The Parkway	33,166 73
Charlesbank	21,851 85
Marine Park	17,585 17
	<hr/>
<i>Amounts carried forward,</i>	\$147,837 78
	<hr/>
	\$6,537,616 33

<i>Amounts brought forward,</i>	\$147,837 78	\$6,537,616 33
Arnold Arboretum	16,856 91	
Wood Island Park	52 68	
	<hr/>	164,747 32
Balance unexpended Dec. 31, 1890 . . . . .	.	761,154 32
		<hr/>
		<u>\$7,463,517 97</u>

PUBLIC PARK DEBT AND SINKING FUND.

Receipts.

Appropriations for interest on debt	\$922,050 16	
Appropriations for Sinking Fund	460,577 00	
Received from betterments, less refunded	307,760 62	
Interest on bank deposits and investments	171,871 81	
Income applied to the payment of debt	94,000 00	
Income paid into Sinking Fund	177,892 86	
From Park appropriations for betterment ex- penses	9,677 62	
From Reserved Fund for repayment of better- ments	241 16	
Unexpended balances of loans for Park lands paid into Sinking Fund	180 84	
	<hr/>	<u>\$2,144,252 07</u>

Disbursements.

Interest on Public Park debt	\$922,050 16	
Debt paid by Sinking Fund	450,000 00	
Public Park Sinking Fund	660,389 26	
Debt cancelled by revenue and betterments	99,000 00	
Betterment expenses	9,677 62	
Betterments held under protest	2,898 87	
Betterments repaid from Reserved Fund	241 16	
	<hr/>	<u>\$2,144,252 07</u>

DEBT STATEMENT.

*The Public Park Debt, Dec. 31, 1890, to be paid as it be-
comes due from the Resources of the Public Park Sinking
Fund.*

Public Park, Charlestown, 4% Loan, due Oct. 1, 1900	\$200,000 00
Franklin Park, 4% Loan, due Jan. 1, 1913	238,000 00
	<hr/>
<i>Amount carried forward,</i>	\$438,000 00

<i>Amount brought forward,</i>	\$433,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1918	60,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1918	50,000 00
Franklin Park, 4% Loan, due April 1, 1913	300,000 00
Charlesbank, 4% Loan, due April 1, 1913	285,000 00
Marine Park, 4% Loan, due April 1, 1913	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1918	119,000 00
Franklin Park, 4% Loan, due Jan. 1, 1914	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1915	16,000 00
Marine Park, 3½% Loan, due Oct. 1, 1915	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916	20,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1916	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917	400,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1918	450,000 00
Public Park Construction, 4% Loan, due April 1, 1918	5,000 00
Public Park Construction, 4% Loan, due July 1, 1918	5,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	40,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1919	480,500 00
Public Park Construction, 4% Loan, due April 1, 1919	16,000 00
Public Park Construction, 4% Loan, due July 1, 1919	8,500 00
Public Park Lands, 3½% Loan, due Jan. 1, 1920	600,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1920	439,500 00
Public Park Construction, 4% Loan, due July 1, 1920	16,400 00
Public Park Construction, 4% Loan, due Oct. 1, 1920	44,100 00
Public Park Construction, 3½% Loan, due Jan. 1, 1937	500,000 00
Total Debt	\$5,135,000 00
Less the means in the Sinking Fund, and in hands of City Treasurer for paying the same, Dec. 31, 1890	663,283 13
Debt, less means for paying	<u>\$4,471,716 87</u>

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Dec. 31, 1890, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

New Library Building, 3½% Loan, due July 1, 1899	\$150,000 00	
Franklin Park, 4% Loan, due Jan. 1, 1913	100,000 00	
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00	
Wood Island Park, 4% Loan, due Jan. 1, 1913	50,000 00	
Muddy River Improvement, 4% Loan, due April 1, 1913	19,000 00	
Cochituate Water, 4% Loan, due April 1, 1917	25,000 00	
Cochituate Water, 3% Loan, due April 1, 1917	25,000 00	
Public Park Construction, 4% Loan, due Oct. 1, 1918	23,500 00	
Public Park Construction, 4% Loan, due Oct. 1, 1920	27,100 00	
Total investments		\$479,600 00
Cash		180,789 26
Total resources		<u>\$660,389 26</u>

PARK CONSTRUCTION.

The work done during the year 1890, and its condition at the present time, were set out in our report to the Mayor, Dec. 29, 1890, as follows:—

“Wood Island Park.—The work of grading the upland and playground, begun last year, is practically finished. The walks have been subgraded, and the plantations ploughed and seeded ready for planting in the spring. Five thousand six hundred and twelve linear feet of drains have been laid, and seven catch-basins and inlets built.

Marine Park. — The pierhead has been completed, and the last span of the iron pier put in place. Two hundred and sixty-seven thousand cubic yards of filling, much of which was dredged from the projected Pleasure Bay, have been deposited on the shore under contract, and some minor repairs have been made on the wooden pier and refectory.

Charlesbank. — The boat-landings were prepared for use, and occupied for the letting of boats during the season. The men's gymnasium was kept open until December 13. Over 100,000 persons have made use of the apparatus in 1890.

The women's gymnasium has been prepared for use early next season, and the lavatory building to be connected with it is under contract to be finished April 1.

The Parkway. — The excavation of the waterway of the Fens, from the site of Fen Bridge to Brookline Avenue, has been in progress through the season, and will be completed during the winter. The Fen Bridge is being constructed, and the filling required to grade this portion of the Fens and the Tremont Entrance is being done under contract.

The Fenway, which includes the drive, ride, and walk from Westland Entrance to Huntington Entrance, has been finished, with the catch-basins and drains, and about four acres of the Fenside planted. Material is on hand to extend the Fenway when the bridge to span Stony Brook at Huntington Entrance is built. It has been our expectation that this bridge would be built by the Park and the Sewer Departments jointly. The regrading of the plantations on Commonwealth Avenue, according to the new plan, made necessary by the proposed widening of the side roads, has been partly done, and will be completed in time for planting in the spring.

The flooring of Beacon Entrance Bridge has been relaid, the iron structure cleaned and painted, and the plantations, roads, and walks have received the usual care.

MAJORITY PRINTING CO.

FRANKLIN PARK—NORTH SIDE OF ELLICOTTDALE. DURING CONSTRUCTION.

809 10th, Wash.



Contracts have been made for the rough grading of four sections of the Parkway along Muddy River, including the whole distance from the Back Bay Fens to the line of Aspinwall Avenue, and from Tremont Street to the line of Cumberland Avenue, and for the excavation of the channel, excepting a small section near Downer Street, and the work is now in progress.

Arnold Arboretum. — The subgrading of the driveway leading from the main driveway to the Walter-Street Entrance has been completed, including the grading of the slopes, the building of three culverts, and the necessary drains. The subgrading of the driveway around the northerly side of Bussey Hill toward Centre Street is being done under contract.

The stone crusher has been removed, and the grounds occupied by it have been restored to their former condition.

Franklin Park. — Glen Road Entrance and adjacent walks, and Glen Lane for two-thirds of its length, have been finished, and the remaining length of Glen Lane partly graded. The park wall has been extended along Glen Lane as far as the lane has been completed.

Circuit Drive, from Valley Gate to its junction with the drive leading to the Columbia-Street Entrance, and the wheelway of the latter entrance from Blue Hill Avenue to the Country Park, have been completed, and the foundations laid for the gateway at the entrance to the Country Park.

On the southerly side of the Park, the circuit drive has been extended to its junction with the Scarboro-Hill Drive, and the latter drive and concourse on Scarboro Hill, together with the walk and stone steps leading from the dairy site to the summit of the hill, have also been completed.

Loop Road has been subgraded and ballasted, the gutters paved, and the drains and catch-basins, a retaining wall to

support a portion of the road, and the stone steps on an approach from the circuit drive have been built.

About 1,500 lineal feet of ride and the walks adjoining the completed part of the circuit drive have been finished. The lower portions of Playstead green have been under-drained, the brook and small pond in Nazingdale have been deepened, and the banks graded.

Ellicottdale has been completed, together with the walks around it, except a small section on the easterly side. The masonry for the arbor and bowers for picnic parties on Schoolmaster Hill is nearly finished, and two drinking-fountains have been built and connected with the water supply.

The flock of sheep now numbers 115, and a number of peafowl and pigeons have been placed in the park.

The City Engineer reports the following items of work completed to date at the Back Bay Fens and Franklin Park. It must not be understood as being a complete statement of the work done, as a large amount of labor has been expended on work which is yet unfinished, and, therefore, unclassified.

Back Bay Fens.

			Per cent. of whole.
Channel excavated	. . .	1,196,000 sq. ft.	.97
Shore completed	. . .	23,600 lin. ft.	.88
Marsh completed	. . .	832,500 sq. ft.	.99
Driveway completed	. . .	52,000 sq. yds.	.59
Walks completed	. . .	19,000 sq. yds.	.37
Ride completed	. . .	5,200 sq. yds.	.39
Curbstone set	. . .	24,511 lin. ft.	.71
Gutters paved	. . .	11,690 sq. yds.	.59
Area covered with loam	. . .	906,000 sq. ft.	.66
Area planted	. . .	809,000 sq. ft.	.59
Boundary fence	. . .	4,047 lin. ft.	.26

HELIOTYPE PRINTING

FRANKLIN PARK—NORTH SIDE OF CLEVELAND

Drains laid	.	.	.	.	.	.	5,775 lin. ft.
Man-holes	.	.	.	.	.	.	6
Catch-basins	.	.	.	.	.	.	72

Franklin Park.

Driveway completed	.	67,000 sq. yds., or $4\frac{1}{4}$ miles.
Walks completed	.	41,000 sq. yds., or $5\frac{3}{8}$ miles.
Ride completed	.	4,200 sq. yds., or 1,500 lin. ft.
Gutters paved	.	14,000 sq. yds.
Curbstone set	.	4,500 lin. ft.
6-in. water-pipe laid	.	3,000 lin. ft.
4-in. water-pipe laid	.	1,150 lin. ft.
Hydrants	.	7
Drinking-fountains	.	7
Bridge	.	1
Boundary-wall	.	3,250 lin. ft.
Brick drain laid	.	1,655 lin. ft.
Pipe drain laid	.	15,835 lin. ft.
Agricultural tile drain laid	.	45,588 lin. ft.
Man-holes	.	39
Catch-basins and inlets	.	126
Open channel for brook	.	2,300 lin. ft.
Area of ground graded and planted or seeded	.	74 acres.
Loop Road has also been graded and ballasted, its length being about	.	3,200 lin. ft.

The need of a further appropriation is most pressing for the Marine Park and the Parkway.

It seems to the Board that the filling of the Marine Park should, without delay, be carried so far that connection may be made with Castle Island, to give the public the use of it as a pleasure-ground, as provided by the Act of Congress.

The Board is also of opinion that the Parkway along Muddy River should be carried to completion without delay. This is essential in order to prevent the diversion of new buildings to Brookline, which would be built along the Parkway if it were a thoroughfare between Charlesgate and Jamaica Pond.

The appropriation of \$2,500,000, authorized by Chap. 304 of the Acts of the year 1886, expires with 1891. Contracts for filling, grading, and excavating in the Marine Park, the Back Bay Fens, the Parkway, Muddy River, and the Arnold Arboretum, which are not yet completed, will require about \$400,000 in 1891. This will leave \$100,000 out of the \$500,000 at the disposal of the Board for the year. This sum will not suffice to keep at work a force equal to that which has been employed in the past year, for more than three months. The Board could employ even a larger force in 1891 with advantage and economy in completing work on all the parks to which the city is already committed, and which it is not practicable to award on contracts; and the Board respectfully suggests that application to the Legislature at the coming session should be made for authority to borrow \$2,500,000 for construction, and \$1,000,000 for acquiring land."

THE PARKWAY SYSTEM.

A vote to effect the special loan of \$600,000, which was authorized by the Legislature of 1888 for the purchase of lands, passed both branches of the City Government, and was approved by the Mayor, Feb. 11, 1890.

Plans were immediately prepared for acting upon this authority, and on April 30 the Board took for the Parkway about 92 acres along Muddy River (the title to 1,268,752 square feet of this land had previously been purchased under a former appropriation). On the same date the Board took

MELIOSYNS PRINTING CO.,

FRANKLIN PARK—UPPER END OF LOCP ROAD.

ROSTON, MASS.

about 145 acres of land and flats along the south shore of South Boston, bordering Old Harbor, and extending from Burnham's Wharf to Marine Park; the taking included whatever right the owners had in the fee in the flats outside the Harbor Commissioners' line.

We are making settlements for these properties as fast as satisfactory terms can be determined, and up to Dec. 31, 1890, the Board had paid for 14 parcels, aggregating about 19 acres of land and flats, \$94,340.21. The Board also bargained for or purchased land at the westerly outlet of the Back Bay Fens required for the revision of the lines, and the enlargement of this outlet to connect with the Muddy-River Improvement, amounting to 152,380½ square feet, at a cost of \$75,222.65.

We have also bargained for land for the extension of Audubon Road over the Boston and Albany Railroad to Audubon Circle in Beacon Street, the owners giving a strip of land one hundred feet wide, in consideration of our undertaking that the strip should be filled to grade and connected with the park system without unnecessary delay, and with sundry stipulations as to the time and manner in which certain parts of the works shall be done, and the necessary papers are being prepared to convey the land to the city. The Board has also purchased for \$4,000 a parcel of land containing 60,373 square feet adjacent to the Arnold Arboretum on Centre Street, near Walter Street.

The plan for the Parkway from Back Bay Fens to Jamaica Pond included a change in the course, and enlargement, of the tortuous and narrow channel of Muddy River which marked the boundary between Boston and Brookline, and in order to have the new channel as changed continue to be the mark, as well as to simplify the construction and maintenance of the Parkway by the city and town respectively, the Legisla-

ture at their request passed an Act so changing the boundary line and establishing the several powers and duties devolving upon the two governments.

Under the Act, 327,740 square feet of land which was taken for the Parkway was carried into Brookline, and 273,077 square feet of land, taken by Brookline for its Parkway, was transferred to Boston, the town paying the city \$20,000 for the excess of land received by the former. The Act is printed in the appendix.

The Park Commissioners of Brookline are proceeding with the construction of the Parkway concurrently with us. They have contracted for the filling and subgrading of the greater part of the work, and a part of it has been done.

June 2, 1890, the Board sent a communication in regard to the land of the Jamaica Pond Aqueduct Corporation to the Mayor, who referred it to the City Council as follows : —

CITY OF BOSTON, EXECUTIVE DEPARTMENT.

The Honorable the City Council : —

GENTLEMEN, — I have the honor to lay before you a communication of the Park Commissioners regarding land now held by the Jamaica Pond Aqueduct Corporation. This land should be acquired by the city, and you are requested to grant the necessary authority as suggested by the Park Commissioners.

Respectfully,

THOMAS N. HART,
Mayor.

JUNE 9, 1890.

DEPARTMENT OF PARKS, CITY OF BOSTON,
85 MILK STREET, June 2, 1890.

HON. THOMAS N. HART, *Mayor* : —

SIR, — In taking land for the Muddy-River Improvement, we have found ourselves confronted near Jamaica Pond with the land of the Jamaica Pond Aqueduct Corporation around and including Ward's Pond, which it is very desirable should be included in the Parkway, but which we suppose we are not at liberty to take under the statutes. We

learn from the Water Board that, in case that Board should purchase the property of the Jamaica Pond Aqueduct Corporation under Chapter 199 of the Acts of 1886, they would be disposed to concede to us the land and pond for park purposes. For this reason we respectfully urge that the Water Board be enabled to acquire this property to the end, among others, that we may make this purchase.

For the Board of Park Commissioners,

THOMAS L. LIVERMORE,
Chairman.

Referred to Committee on Park Department.

Subsequent action was taken as follows : —

IN BOARD OF ALDERMEN, June 23, 1890.

Report of the Committee on Park Department, recommending the passage of the following : —

Ordered, That the Committee on Water and the Committee on Park Department constitute a special committee to consider the communication from the Board of Park Commissioners, transmitted by the Mayor, relative to the purchase of the Jamaica Pond Aqueduct Corporation property.

Report accepted, order passed in concurrence.

In connection with the above, Alderman Smith, under a suspension of the rule, submitted the following : —

The joint special committee appointed to consider the expediency of the city's purchasing the property and franchise of the Jamaica Pond Aqueduct Corporation, having considered the subject, respectfully report in part at this time by recommending the passage of the following order, whereby the city accepts the Act authorizing the purchase proposed (Chap. 199, Acts of 1886) : —

Ordered, That Chapter 199 of the Acts of 1886, entitled " An Act to authorize the city of Boston to purchase the property of the Jamaica Pond Aqueduct Corporation," be hereby accepted.

Report accepted, order passed, yeas 11, nay 1, Alderman McLaughlin voting nay. Alderman Smith moved to reconsider; lost. Sent down.

The order recommended by the joint special committee was laid on the table in the Common Council. No action has since been taken.

We respectfully recommend early acceptance of the Act and authorization of the purchase by the Water Board.

EXTENSION OF THE PARKWAY.

Topographical surveys of the easterly border of Jamaica Pond, of the plain extending from the Pond to Centre Street on either side of Orchard Street, and of the lands lying along Morton Street, between the Arboretum and Franklin Park, have been made and plotted, and plans are now being prepared by the Landscape Architects to establish the lines of the proposed Parkway through these sections. We suggested to the last City Government the advisability of applying to the Legislature at its present session for a loan of \$1,000,000 for the purpose of acquiring the lands needed for the extension of the Parkway to Franklin Park, the Jamaica Pond lands (Jamaica Park), and the remaining lands required for the Parkway to Marine Park, stating our belief that the rise in the value of the lands in question will every day make it more expensive to acquire them.

The Board has from the beginning advocated the taking of the entire shore of Jamaica Pond on account of the beauty of the lake with its rural surroundings; its banks ornamented with fine trees, lawns, and shrubberies, already park-like in their character, and requiring little of art and of costly improvement to make them available for park use. The pond itself of seventy acres would be a continued source of enjoyment for boating in summer, and skating in winter, which pastimes would be encouraged and much more freely indulged in under public control and police protection. The exceptional character of this location, both from its beauty of scenery and desirability for use, makes it proportionally valuable to the Park System, and its advantages from this point of view greatly outweigh its cost. We cannot too strongly urge immediate provision for acquiring it.

COMMONWEALTH AVENUE.

June 2, 1890, the Board received the following petition : —

We, the undersigned, taxpayers and citizens of Boston, and owners of land on Commonwealth Avenue, west of West Chester Park, would most respectfully represent to your Honorable Board, that the present laying out of said avenue is prejudicial to our interests and the public at large, in that it is impossible to dispose of the land to those who would insure the building of houses befitting the superior location and the entrance to the Park.

We would, therefore, earnestly pray that Commonwealth Avenue, between West Chester Park and the junction of the three roads, be relaid out so as to correspond as nearly as possible to the present topographical laying out of said Avenue east of West Chester Park, and to this end we pray for a hearing in the matter as soon as may be.

ABBOTT LAWRENCE,
S. E. PEABODY,
HENRY LEE,
ALEX. F. WADSWORTH,
N. THAYER,
E. V. R. THAYER,
JOHN C. ROPES,

T. JEFFERSON COOLIDGE,
WALTER HUNNEWELL,
ASA P. POTTER,
FRANCIS PEABODY, JR.,
J. MALCOLM FORBES,
FRANCIS I. AMORY,
RICHARD OLNEY.

June 9, 1890, the Board gave a hearing to the petitioners and thereupon voted as follows : —

Voted, That this Board recommends to the Street Department that the side roads on the south side of Commonwealth Avenue be widened to thirty feet between West Chester Park and Brookline Avenue, as shown on a plan drawn by F. L. & J. C. Olmsted, dated May 14, 1890.

Subsequently, on petition of T. Jefferson Coolidge and others, the Board voted to recommend the same widening of the side road on the north side of Commonwealth Avenue between Charlesgate West and Beacon Street. The widening of the side roads and consequent lessening of the area of the spaces to be planted necessitated the regrading of the

mounds. Plans changing their contour and reducing their height to conform to the new conditions were prepared by the Landscape Architects, and the work of regrading was carried on until work was suspended for the winter.

It is our intention to plant these areas as soon as the season will permit. It is important to the interests of the city in the development of the lands upon this Avenue that the Street Department should at once macadamize the side roads and open them for travel.

INCREASED VALUATION AND REVENUE DUE TO PUBLIC PARKS.

In some of its reports prior to 1886 the Board published tables of increased valuations of the lands assessed for betterments, which were due in a measure to the laying out of the Back Bay Fens, and of the revenue from taxes upon these increased valuations.

These tables have now been brought down to 1890, and they are printed herewith. They tend to show that this effect of this improvement has continued to the present time.

The same result occurs, although to a lesser degree, in the cases of Franklin and Marine Parks.

Between 1883 and 1890 the increase in the valuation of the lands around Franklin Park, which were assessed for betterment, was \$1,230,600, or 39 per cent.; and the increase in the valuation of land in the rest of the three wards within which these lands lie was 31 per cent.; while the increase in the valuation of the land in the rest of the city, less the lands assessed for betterment for the Back Bay Improvement and Marine Park, was only $27\frac{6}{10}$ per cent.

In the same time the increase in the valuation of the lands near Marine Park which were assessed for betterments amounted to 70 per cent. of the valuation before the taking.

The Assessors' valuations from 1877 to 1890 of the 15,388,567 square feet of land, which, in the estimation of the Board, were favorably affected by the locating and laying out of the Back Bay Improvement, and were assessed a proportional share of the expense thereof, show an increase in valuation of \$23,094,549, or an average of \$1.50 per square foot, while the entire betterment laid upon these lands averaged about $5\frac{8}{10}$ cents per square foot, only one-half of which could be charged under the law to the estates benefited. This assessment was $3\frac{8}{10}$ per cent. of the valuation of these lands in 1877, while the increase in valuation in 1890 was 207 per cent., or more than fifty-three times the amount of betterment assessed.

The valuation of land in the rest of the city, during the same period, increased only 18 per cent., and the most of the increase occurred in the business districts.

The Assessors' valuations of the estates on the Back Bay which were assessed for betterment, for the above fourteen years, are as follows, not including buildings : —

	Valuation.	Annual Increase.	Total Increase.
In 1877 . . .	\$11,143,751		
1878 . . .	12,290,392	\$1,146,641	\$1,146,641
1879 . . .	12,855,664	565,272	1,711,913
1880 . . .	16,529,900	3,674,236	5,386,149
1881 . . .	19,957,400	3,427,500	8,813,649
1882 . . .	20,847,500	890,100	9,703,749
1883 . . .	22,068,600	1,221,100	10,924,849
1884 . . .	22,794,800	726,200	11,651,049
1885 . . .	23,079,200	284,400	11,935,449
1886 . . .	25,353,100	2,273,900	14,209,349
1887 . . .	28,760,900	3,407,800	17,617,149
1888 . . .	30,123,500	1,362,600	18,979,749
1889 . . .	33,149,600	3,026,100	22,005,849
1890 . . .	34,238,300	1,088,700	23,094,549

The taxes upon the above increase of valuations of the lands assessed for betterment for thirteen years were as follows : —

	Increase.	Rate.	Tax.
In 1878 over 1877	\$1,146,641	\$12 80	\$14,677 00
1879 “	1,711,913	12 50	21,398 91
1880 “	5,386,149	15 20	81,869 46
1881 “	8,813,649	13 90	122,509 72
1882 “	9,703,749	15 10	146,526 60
1883 “	10,924,849	14 50	158,410 31
1884 “	11,651,049	17 00	198,067 83
1885 “	11,935,449	12 80	152,773 74
1886 “	14,209,349	12 70	180,458 73
1887 “	17,617,149	13 40	236,069 80
1888 “	18,979,749	13 40	254,328 64
1889 “	22,005,849	12 90	283,875 45
1890 “	23,094,549	13 30	307,157 50
Increased taxes on land . . .			<hr/> \$2,158,123 69

The increased revenues from taxes upon new buildings erected upon these lands between 1877 and 1890 are as follows : —

	Increase.	Rate.	Tax.
In 1878 over 1877	\$461,300	\$12 80	\$5,904 64
1879 “	896,000	12 50	11,200 00
1880 “	1,866,700	15 20	28,373 84
1881 “	3,992,300	13 90	55,492 97
1882 “	5,549,100	15 10	83,791 41
1883 “	7,053,100	14 50	102,269 95
1884 “	8,837,700	17 00	150,240 90
1885 “	9,996,900	12 80	127,960 32
1886 “	11,320,900	12 70	143,775 43

	Inc. ease.	Rate.	Tax.
1887 over 1877	\$13,022,500	\$13 40	\$174,501 50
1888 " "	15,051,600	13 40	201,691 44
1889 " "	16,835,000	12 90	217,171 50
1890 " "	18,328,100	13 30	243,763 73
Increased taxes on buildings	.	.	<u>\$1,546,137 63</u>

SUMMARY.

Amount of betterments as-		
essed	\$431,972 00	
Abated for over-estimate of		
land	\$375 00	
Assumed by city		
on land given		
for streets and		
in settlements		
of suits	115,586 92	
	<u>115,961 92</u>	\$316,010 08
Increase of taxes on increased valuation of		
the lands assessed for betterment		2,158,123 69
Increase of taxes on new buildings erected		
on said lands		1,546,137 63
Total betterments and increased taxes		<u>\$4,020,271 40</u>
The total expenditure for parks, excluding		
interest on loans, and maintenance ex-		
penses, to 1891, was		<u>\$6,537,616 33</u>
The interest paid in 1890 on the debt of		
\$5,135,000 was		\$161,614 45
The annual interest at 3½% on the balance		
of expenditure is		49,091 57
		<u>\$210,706 02</u>

The increase of revenue in 1890, as above shown, is —

On lands	\$307,157 50	
On buildings	243,763 73	
	<hr/>	\$550,921 23
		<hr/>

To this may be added \$18,404.54, due to increase in valuation of lands which were assessed for betterments by reason of the laying out of Franklin and Marine Parks.

THE FRANKLIN FUND.

In the report of proceedings of the Board of Aldermen, of Jan. 19, 1891, occurs the following:—

Alderman Stacey, for the committee, submitted the following:—

The special committee of the Board of Aldermen, appointed to examine the accounts of Samuel F. McCleary, treasurer of the Franklin Fund, have attended to their duty, and respectfully report that said account seems to be correctly kept, the interest has been duly collected, and the securities were exhibited and examined. The present state of the fund is as follows:—

Amount of fund, Feb. 1, 1890	\$368,741 12
Interest accrued and collected	14,755 26
	<hr/>
Total fund at this date	<u>\$383,496 38</u>

The fund is invested as follows:—

Massachusetts Hospital life policies:—

No. 2095	\$370,624 99	
No. 2230	5,988 60	
No. 3831	3,471 82	
	<hr/>	\$380,085 41
Suffolk Savings Bank	3,080 84	
Balance of bonds in force	330 00	
Cash	13	
	<hr/>	
Total		<u>\$383,496 38</u>

REPRODUCED FROM THE
NATIONAL ARCHIVES

FRANKLIN PARK—WINTER VIEW FROM OUTLOOK ON LOOP ROAD

NOV 1941, WASH

Under the provisions of Franklin's will a large portion of this sum will become available to the city of Boston on May 1, 1891. Franklin's estimate at the date of his will was that his bequest to the city of Boston would amount in 1891, by proper management and care, to the sum of \$655,000, of which \$500,000 should be given to the city for public works, and the remainder be put at interest for another century. But, through some early losses, Franklin's expectations were not realized. It is estimated, however, that on May 1st next, by reason of additional interest, the total sum will amount to \$388,000, which, if divided into the proportions indicated by Franklin, would entitle the city to receive not far from \$290,000; the remainder to be placed at interest as before stated.

The committee report that the following notice in writing has been served upon the treasurer by the heirs of Franklin in Philadelphia, forbidding any disposition of the fund without their assent: —

[COPY.]

50 STATE STREET, BOSTON, Oct. 4, 1890.

Notice is hereby given you by the next of kin of the late Dr. Benjamin Franklin, and the residuary legatees under his last will and testament, that they claim to be entitled to the fund created by him in favor of young mechanics of the city of Boston, and the accumulations thereof, which originally amounting to one thousand pounds sterling, appears by the annual report of the treasurer to have amounted on February 1st, 1890, to \$368,741.12.

You are hereby further notified to hold, and dispose of, the same subject to their order and not otherwise.

By their attorneys,

ROPES, GRAY, & LORING.

To SAMUEL F. MCCLEARY, Esq.,

Treas. Franklin Fund,

23 Equitable Building, Boston.

It is hoped that the legal question involved will be determined before the close of the present financial year, so that the proceeds may be available to the city.

The committee recommend that a legal meeting of the trustees be held to consider this subject before the period indicated.

Report accepted, and placed on file.

In the event of a portion of the Franklin Fund becoming available the present year for "public works," this Board,

for reasons fully appearing in its report for 1885, desires to renew its former recommendation that it be devoted to the development of Franklin Park instead of the payment of its funded debt as has been hitherto suggested.

This money could be used to advantage in constructing "The Greeting," "The Music Court," and "The Little Folks' Fair." In the "Notes on the Plan of Franklin Park," supplementary to the Eleventh Annual Report of the Board, Mr. Olmsted refers to these divisions as follows : —

The Greeting. This division is to be wholly occupied by a series of parallel and contiguous drives, rides, and walks, a double length of each, under rows of trees forming a Promenade, or Meeting Ground, of the Alameda type, half a mile in length. Monumental, architectural, and various decorative adjuncts are here admissible, but not essential. There are suitable positions for statues, water-jets, "baskets" of flowers, bird-cages, etc. The Playstead and the Greeting are to be without underwood, and adapted with electric lighting for night as well as day use. Together they will form an unenclosed ground, reaching across the Park, nearly a mile in length.

The Music Court. A sylvan amphitheatre adapted to concerts.

The Little Folks' Fair. A division for childish entertainments, to be furnished with Swings, Scups, See-saws, Sand Courts, Flying Horses, Toy Booths, Marionettes, Goat Carriages, Donkey Courses, Bear-Pits, and other amusing exercises and exhibitions, mostly to be provided by lessees and purveyors, to be licensed for the purpose.

LAKE IN FRANKLIN PARK.

In the plan of Franklin Park of 1885 no provision for artificial water was made, it being thought by the Landscape Architects and City Engineer that the watershed was too limited to supply a lake or pond of any considerable size with water during the summer season. But the water afforded by a number of springs and by under-drainage of the Playstead and adjoining grounds, when collected into one channel, was found to have a continual flow through the dry season,

HELIOTYPE PRINTING CO

FRANKLIN PARK—PLAYSTEAD SHELTER IN WINTER

BOSTON, MASS.

and during the winter of 1889 and 1890 it was allowed to flood the lower levels of the Nazingdale meadow to afford skating, as it also has been this winter. At the suggestion of the Board, followed by the request of many citizens of the district, which later found expression in a petition signed by Hon. Moody Merrill, Hon. Paul H. Kendricken, Francis W. Kittredge, and fifty-three others, the Landscape Architects set about the study of a revision of the plan which should provide for such a moderate water-basin as could very likely be maintained, without stagnation, by the water available in summer.

These investigations are still in progress, no plan having yet been sufficiently elaborated to be submitted. When these investigations are completed, and the question of artificial water area determined, the Board will issue a new map of the Park for distribution.

MARINE PARK.

The plan of the Board to connect Castle Island with Marine Park having been brought before Congress by the Hon. J. H. O'Neil, M.C., a report thereon was made by the Committee on Military Affairs as follows:—

CASTLE ISLAND, BOSTON HARBOR.

MARCH 25, 1890.—Referred to the House Calendar, and ordered to be printed.

Mr. WILLIAMS, of Ohio, from the Committee on Military Affairs, submitted the following

REPORT.

[To accompany H. Res. 14.]

The Committee on Military Affairs, to whom was referred House Resolution 14, being a joint resolution "Authorizing the use and improvement of Castle Island, in Boston Harbor," having carefully considered the matter, report as follows:—

The resolution permits the city of Boston, through its park commissioners, to use a portion of Castle Island, in Boston Harbor, Massachu-

setts, in connection with its park system, and to make such excavations and fillings and erect such structures thereon as may be necessary, with the approval of the Secretary of War, the ownership and control of the island to remain entirely in the United States.

The island being one of the Government reservations, the resolution was submitted to the War Department, and it has been returned by the Secretary, with letters from Major-General Schofield and Brigadier-General Casey, approving the proposed use of the island, which approval is concurred in by the Secretary. General Schofield says the value of the island "would be enhanced by the improvements which this bill contemplates, especially by the road and bridge connecting the island with the mainland," and General Casey recommends the addition of a proviso to the resolution, "that the bridge leading from the harbor line to the island shall not be constructed until the plans for same have been approved by the Secretary of War," and that when this provision is added, "there will be no objection to the passage of the bill."

As the proposed improvement contemplates, by the dredging of the channel and the filling in of the flats around the island, to add to its area about twenty-two acres of what will be very valuable land, the title to which will vest in the United States, at no cost to the Government, and as the use of the island can be terminated at the pleasure of the Secretary of War whenever he deems its use necessary to the Department, the committee suggest that the resolution be amended by adding at the end thereof the following words: "And that the bridge leading from the harbor line to the island shall not be constructed until the plans for same have been approved by the Secretary of War." And as so amended the committee recommend that the resolution do pass.

June 2, 1890, the Board received the following official notice of the passage of the resolution: —

CITY OF BOSTON,
EXECUTIVE DEPARTMENT.

To the Honorable the Board of Park Commissioners: —

GENTLEMEN, — I transmit herewith for the information of your Honorable Board, and for the files of your Department, a certified copy of the joint resolution of Congress, approved May 1, 1890, authorizing the use and improvement of Castle Island, in Boston Harbor.

Respectfully,

(Signed)

THOMAS N. HART,

MAY 31, 1890.

Mayor.

UNITED STATES OF AMERICA.

DEPARTMENT OF STATE.

To all to whom these presents shall come, Greeting :

I Certify, That hereto annexed is a true copy of an Act of Congress, approved May 1, 1890, the original of which is on file in this Department, entitled: Joint resolution authorizing the use and improvement of Castle Island, in Boston Harbor.

In testimony whereof, I, James G. Blaine, Secretary of State of the United States, have hereunto subscribed my name and caused the seal of the Department of State to be affixed. Done at the City of Washington, this twenty-ninth day of May, A.D. 1890, and of the Independence of the United States of America the one hundred and fourteenth.

(Signed) JAMES G. BLAINE.

[Seal.]

[PUBLIC RESOLUTION, No. 16.]

Joint resolution authorizing the use and improvement of Castle Island, in Boston Harbor: —

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That permission be and is hereby granted to the city of Boston, in the State of Massachusetts, through its Park Commissioners, to improve and beautify Castle Island, situated in said city, and belonging to the United States, in connection with a public park to be laid out on land adjoining and connecting with said island, with the right to said city of Boston to make such excavations and fillings and erect and maintain such structures as the Secretary of War may, from time to time, approve; Provided, That this resolution shall not be construed to pass any title in said island, but that the ownership and control of the said grounds shall remain entirely in the United States, and shall be subject to such changes and uses for military or other purposes as the Secretary of War may direct, and that the bridge leading from the harbor line to the island shall not be constructed until the plans for the same have been approved by the Secretary of War.

Approved May 1, 1890.

The thanks of the Board and also of the City Council were tendered to Congressman O'Neil for his efforts in securing the passage of the resolve.

The United States Board of Engineers constituted to establish the harbor lines of Boston Harbor recommended in 1889 a line "along the south shore of the reserved channel, and around to the south shore of City Point, South Boston." This line had previously been established in part by the Commonwealth; but under the acts authorizing the construction of the Marine Park the pier and filling had already been extended beyond the line so established. On Jan. 28, 1890, this Board applied to the United States Board of Engineers for such a change in the harbor line as would conform to the plan of the Marine Park. To this request the Board received the following reply:—

UNITED STATES ENGINEER OFFICE,
BOSTON, MASS., March 12, 1890.

BENJ. DEAN, ESQ., *Chairman Park Commission, Boston, Mass.*:—

SIR,—I have the honor to forward herewith a copy of a report of the United States Harbor Line Board, dated Jan. 30, 1890, on the subject of an extension of the lines at City Point, South Boston, and a blueprint on a scale of 1:10,000, illustrative thereof.

The report of the Board was approved by the Honorable the Secretary of War, Feb. 4, 1890.

Very respectfully,
Your obedient servant,

(Signed) S. M. MANSFIELD,
Lieutenant Colonel of Engineers.

UNITED STATES HARBOR LINE BOARD,
BOSTON, MASS., Jan. 30, 1890.

THE CHIEF OF ENGINEERS, *United States Army, Washington, D.C.*:—

GENERAL,—The Harbor Line Board for Boston Harbor, constituted by S. O. No. 38, Headquarters Corps of Engineers, Aug. 13, 1888, has the honor to state that at a session held in this city June 25, 1889, it submitted to the Secretary of War for approval, in a report dated July 20, 1889, the State pier-head and bulkhead line across the eastern end of South Boston, at Dorchester Point, which line, marked A to C, was approved by the Secretary of War July 27, 1889.

At the time the report was submitted, the Park Commissioners of the city of Boston, under authority of State law, were building an iron pier, with solid abutment, out into the harbor in advance of the State harbor lines.

In a letter dated Jan. 28, 1890, the Park Commissioners made an application to the Board, that certain changes be made in the approved harbor lines adjacent to the iron pier, to conform to plans prepared by them in connection with the Marine Park, of which the iron pier is an important feature.

The Board does not favor any change in the harbor lines approved by the Secretary of War July 27, 1889, but in view of the fact that the Park Commissioners had been authorized by the Legislature of Massachusetts to extend their structures beyond the State harbor line, subsequently adopted by the Secretary of War, and that the pier in question has been nearly completed, the Board respectfully recommends that the Secretary of War authorize the Park Commissioners to extend it as far as shown upon the enclosed chart.

Respectfully submitted,

(Signed) HENRY L. ABBOTT,
Colonel of Engineers, Brevet Brigadier-General, U.S.A.

(Signed) G. L. GILLESPIE,
Lieutenant Colonel of Engineers.

(Signed) S. M. MANSFIELD,
Lieutenant Colonel of Engineers.

(Signed) W. R. LIVERMORE,
Major of Engineers.

Oct. 20, 1890, this Board again addressed the United States Harbor Line Board in regard to the Plans for Marine Park, as follows : —

BOSTON, Oct. 23, 1890.

TO LIEUT. COL. S. M. MANSFIELD, *of the U.S. Harbor Line Board for Boston Harbor : —*

SIR, — We enclose a diagram of a proposed harbor line around Castle Island representing the views of the commissioners as to what is desirable in fixing a limit for the operations attendant upon the occupation of the island in connection with the Marine Park, as provided by the joint resolution of Congress.

• This line is designed to provide a limit for slope of beach of about

two hundred feet from proposed high-water line as near as an easily described angular line will permit.

At the northerly end of the island it is desirable that as much space should be allowed adjoining the wharf on the main channel as is afforded by this line, in order to provide for extensions of the wharf, which may be desirable in the future, as a landing-place for passenger steamers from the city.

Respectfully, for the Board,
(Signed) ISAAC FENNO,
Chairman pro tem.

The line suggested by the Board was adopted by the Harbor Line Board in a report dated Jan. 23, 1891, and approved by the Secretary of War Jan. 29, 1891. All the harbor lines adjoining the Marine Park, as finally approved, are shown on the "grading plan" for the park herewith published.

PLAN FOR CASTLE ISLAND POINT.

In order to enable the citizens of Boston to make use of Castle Island as a pleasure ground as soon as possible, the Landscape Architects at our request have prepared a plan for adapting the island to that use in the shortest time possible, and with the least expense. This plan provides for a suitable driveway, and walks encircling the island.

The present contracts for filling will, before the expiration of 1891, extend the mainland out within 2,300 feet of Castle Island. Contracts could probably be made to carry the filling to the proposed bridge, and to build the bridge within two years, if a sufficient appropriation were placed at our command; or, if it were found to be economical, a temporary pile-bridge to the proposed bridge could be built this season. It is our earnest desire to connect Castle Island with the mainland in one way or another as soon as possible. .

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NATURAL HISTORY GARDENS.

The plan for establishing Zoölogical Gardens and Aquaria in the public parks by the Boston Society of Natural History, as published in the last Annual Report of this Board, was approved by vote of the Board as follows :—

"IN BOARD OF PARK COMMISSIONERS,
"Feb. 10, 1890.

"*Voted*, That the Board of Park Commissioners, having considered the letter of the Council of the Boston Society of Natural History, dated Dec. 31, 1889, which embodies the Society's plans for the establishment of a Marine Aquarium, a Fresh Water Aquarium, and a New England Zoölogical Garden, and appreciating the governing principles of these plans, desires to express its disposition to coöperate with the Society in carrying them into effect for the benefit of the public, reserving for future consideration the extent to which the ground in the Parks can be devoted to the same."

In answer to a request for a statement of the action, if any, which the Society has taken during the past year in reference to the establishment of Natural History Gardens in the Public Parks, the clerk of the Society replies that, "recognizing the importance of the step it was taking and the need of a general public support, the Natural History Society has carefully considered how it could best enlarge its sphere and still maintain its integrity. It has, in accordance with this feeling, remodelled its fundamental rules, and opened the way for a new class of members. Certain privileges will be offered to citizens who will join this class of members, and it is expected that a large and generous response to this call will testify to the earnest support of the

public. The Society has also created a special Board of Directors to have entire control of the Gardens, subject, however, to the general supervision of the Council of the Society, which may at any time call for special reports. These Directors will regularly make an annual public report to the Society at its Annual Meeting in May, which will be printed and distributed to all members.

"Arrangements are now being perfected to raise the fund necessary to begin the undertaking by the establishment of a Marine Aquarium at the Marine Park in South Boston ; and this part of the work will be rapidly pushed in the near future."

The present contracts for filling will, this year, carry the land out beyond the basins which are to be left for the Marine Aquarium, so that the Natural History Society can, if it is ready, establish the Aquarium by 1892. A plan of the proposed Aquarial Garden is herewith printed.

EXTENSION OF CHARLESBANK.

We would refer to the report of the Board of 1876 for a description of the proposed embankment on Charles River, from Leverett Street to Cottage Farm Station, about two and three-quarters miles in length, and to its reports of 1885 and 1886 for recommendations of action towards securing the right to construct it by act of the Legislature.

We renew the recommendation that application be made to the Legislature for the right to extend the embankment.

Charlesbank has proved to be a great boon to the residents in the West End of the city.

The open-air gymnasium has, we think, been of great benefit. Over 100,000 entries for use of the apparatus or grounds were made during the year.

The open-air gymnasium for women and girls is nearly finished, and will be open for use in the coming season.

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A PARK FOR CHARLESTOWN.

On the application of the City Government in 1890, the Legislature authorized the issue of a special loan of \$200,000, outside the debt limit, to be applied to the taking of lands, not exceeding \$150,000 in assessed valuation, for a park in Charlestown, the balance of the loan, after paying for such lands, to be used for construction.

We gave a public hearing to all interested in the subject, and plans were submitted to us by citizens of the district suggesting sites for parks or playgrounds in seven locations.

It is our hope to secure the requisite ground for a reasonable price by advertising for proposals to sell the whole or parts of the land for a park or parks.

A copy of the act and the order of the City Council authorizing the loan will be found in the appendix.

PUBLIC MEETING GROUNDS.

In its report of last year, under the above heading, the Board suggested the location of a large common on the South Bay, which would serve for games of ball and other athletic sports, large open-air meetings, and for training or parade purposes for the militia.

This suggestion led to an offer being made by the owners of a large part of the flats in South Bay to sell to the city twenty acres, or thereabouts, upon terms stated in the following letter : —

BOSTON, Dec. 30, 1890.

HON. THOMAS L. LIVERMORE, *Chairman of the Park Commissioners of the City of Boston* : —

DEAR SIR, — Upon your request for a price for about twenty acres in the South Bay, for park purposes, a meeting of the Directors of the South Bay Improvement Company was held on the 29th inst., and the following vote was passed : —

Voted, That the treasurer be authorized to sell to the city of Boston, or to the Park Commissioners thereof, a tract of about twenty (20) acres for park purposes, situated in the South Bay, between the New York & New England Railroad, Swett street, Boston street, and East Chester Park, according to a preliminary plan for a playground, made by F. L. Olmsted & Co., of Brookline, and dated Oct. 20, 1890, on the following terms: The price to be ten cents per square foot, and the area to be paid for to be to the centre of a sixty-foot street which it is understood shall surround the tract sold as per aforesaid plan, this company to give the remaining thirty feet in width necessary for the street, but the City or Park Commissioners to do the filling, and to build the entire street.

It is understood that the City or Park Commissioners shall fill the tract to grade and build the streets mentioned within a reasonable length of time satisfactory to this Board, and that a slight change may be made in the location of the tract sold if it may seem desirable.

It is also understood that this option shall be good for six months from date and no longer.

Yours truly,

(Signed)

ROB'T W. LORD,

Treasurer.

This proposition is submitted for information and for such action as may be deemed advisable. It is the opinion of the Board, however, that such a ground, if obtained, should not be considered a part of the park scheme; and that, therefore, it might as well be secured independently of this Board, and placed in charge of the Department of Public Grounds.

Attention is directed to the fact that the proposition remains open only until June 30 next.

PENDING CONTRACTS.

Our pending contracts, with the value of the unperformed work, are as follows : —

Contractor.	Place.	Nature of Work.	Date for Finishing.	Amount.	Unperformed.
Joseph E. White . .	Marine Park .	Filling	Oct. 5, '90,	\$152,500 00	\$46,018 25
Perkins & White .	" " .	"	Sept. 10, '91,	212,000 00	184,178 92
Boston & Albany R.R.	Back Bay Fens,	" . . . .	. . . . .	61,200 00	51,476 45
Wm. T. Davis . . .	Arnold Arbo'm	Grading . . .	Dec. 31, '90,	7,685 00	5,775 46
James Killian . . .	Muddy River .	" . . .	June 1, '91,	14,206 00	13,916 49
Owen Nawn	" " .	" . . .	" "	6,640 00	6,335 83
Edward F. Brigham,	" " .	" . . .	" "	12,207 50	11,923 95
H. P. Nawn	" " .	" . . .	Aug. 1, '91,	83,790 00	83,309 84
John French	Charlesbank .	Women's Bl'dg	April 1, '91,	6,779 00	6,779 00
Wm. H. Ward . . .	Back Bay Fens,	Fen bridge . .	June 1, '91,	20,490 00	20,490 00
Shaller & Schniglan,	Marine Park .	Iron Pier Ex- tension . . .	. . . . .	30,519 06	1,041 00
D. A. Sargent . . .	Charlesbank .	Gymnastic Ap- paratus . . .	. . . . .	1,400 00	650 00
		Totals . . .	. . . . .	\$609,416 56	\$431,895 19

The City Engineer's report, late legislation respecting the public parks, and a schedule of the property of the Department will be found in the Appendix.

Respectfully submitted,

THOMAS L. LIVERMORE,

ISAAC FENNO,

FRANCIS A. WALKER,

Commissioners.

Boston, Jan. 30, 1891.

APPENDIX.

APPENDIX.

CITY ENGINEER'S REPORT.

ENGINEERING DEPARTMENT,

CITY HALL, BOSTON, Dec. 27, 1890.

THOMAS L. LIVERMORE, Esq., *Chairman Board of Park Commissioners*: —

SIR, — I herewith submit the following report of the work done and of the matters of interest in connection with the work placed under my direction by your Board, the work being continued under the immediate charge of Assistant Engineer E. W. Howe.

THE PARKWAY — BACK BAY FENS.

Excavation of Waterway. — As stated in the last report, this work was at that time completed, excepting the channel from the Fen Bridge to Brookline Avenue. Work was resumed in May, when the additional land needed in this vicinity had been acquired, and has been continued since that time, but at considerable disadvantage, by reason of the difficulty of disposal of the excavated material. The excavation will probably be completed during the present winter in season to allow of the adjoining slopes being prepared for planting.

On August 8 a contract was made with James A. Murphy for excavating at Longwood Entrance, near Brookline Avenue. This contract was completed October 14, and under it there were excavated 7,706 cubic yards, at $34\frac{1}{2}$ cents per cubic yard.

Roadways and Walks. — The main drive from the Westland Entrance to Parker Street, at the Huntington Entrance, has been completed, and the ride and walk between the same and the water-

way finished, with the exception of a short length between the gate-chamber and the new outlet of Stony Brook. Catch-basins and drains have been constructed on this section.

Considerable quantities of broken stone, paving-blocks, and curbstone are on hand for the extension of this work as soon as the bridge over Stony Brook is built.

Grading of Slopes, Loaming, and Planting. — The four acres mentioned in the last report as being ready for planting have been planted, and an additional area of about one acre, on the Huntington and Longwood Entrances, has been graded and covered with loam.

Filling. — On September 16 a contract was made with the Boston & Albany R.R. Co. for grading the Tremont and Longwood Entrances. The price to be paid for the filling in place is 51 cents per cubic yard, bank measurement. Work was begun on October 28, and is now in progress.

Miscellaneous. — One hundred settees were purchased during the year, and have been placed along the walks.

Ten geese and six ducks, of different varieties, were placed in the pond in the spring.

A new floor has been laid on the Beacon Entrance Bridge, and the iron-work of the bridge thoroughly cleaned and painted. The bridge had not been painted since its construction in 1882.

The platform covering the gates at the outlet of the pond near Beacon Street has been repaired.

A new plan having been adopted for the laying out and grading of the plantations on that part of Commonwealth Avenue between West Chester Park and Beacon Street, the work of regrading was begun late in the fall, and will be completed early in the spring.

The following table gives the principal items of work completed to date: —

					Per cent. of whole.
Channel, excavated	.	.	.	1,196,000 sq. ft.	97
Shore, completed	.	.	.	23,600 lin. ft.	88
Marsh, “	.	.	.	832,500 sq. ft.	99
Driveway, “	.	.	.	52,000 sq. yds.	59

						Per cent. of whole.
Walks, completed	.	.	.	.	19,400 sq. yds.	37
Ride, " "	.	.	.	.	5,200 sq. yds.	39
Curbstone set	.	.	.	.	24,511 lin. ft.	71
Gutters paved	.	.	.	.	11,690 sq. yds.	59
Area covered with loam	.	.	.	.	906,000 sq. ft.	66
Area planted	.	.	.	.	809,000 sq. ft.	59
Boundary fence	.	.	.	.	4,047 lin. ft.	26
Drains laid	.	.	.	.	5,776 lin. ft.	
Man-holes	.	.	.	.	6	
Catch-basins	.	.	.	.	72	

Considerable work besides that described in the table has been but partially completed, and cannot as yet be classified.

The usual force has been employed during the year in the care of the plantations, roads, walks, etc.

MUDDY RIVER AND STONY BROOK COVERED CHANNELS.

The former of these remains in the same condition as was described in the report for 1888. A section of the Stony-Brook conduit, about 650 feet in length, has been for some time distorted in shape, and is under the portion of the Fenway which was finished during the past season; as the construction of the roadway necessitated additional filling, it was thought best to repair and strengthen the conduit. This was done at small expense. The gate-chamber was also cleaned, and the gates put in order.

MUDDY RIVER.

In October contracts were made with the following persons for doing the rough grading on this portion of the Parkway, in accordance with plans prepared by the landscape architects:—

Section A. — James Killian.

Section B. — Owen Nawn.

Section C. — Edward F. Brigham.

Section D. — H. P. Nawn.

Owing to the lateness of the season when work was begun, but a small amount has been done under these contracts.

ARNOLD ARBORETUM.

At the beginning of the year work was in progress upon the sub-grading of the road from the main drive to the Walter-Street Entrance. This work has been completed, and comprises all of the grading of the road-bed and the side slopes, the building of three culverts, and the laying of drains through the slopes where they will be needed as outlets for catch-basins.

The crusher has been removed; the knoll occupied by it has been restored to its previous condition, and the temporary dam, built to retain water for the use of the crusher-engine, has been removed.

The gravel-pit near Bussey Street has been graded, and the slopes left in condition for planting.

On October 7 a contract was made with William T. Davis for grading the driveway around the northerly side of Bussey Hill, and across the meadow towards Centre Street, opposite Orchard Street. Work was begun under this contract on October 11, and is now in progress.

FRANKLIN PARK.

Drives, Rides, and Walks. — That portion of Glen Road which follows the location of the old road and the adjacent walks has been completed to the westerly line of the park.

Glen Lane at its easterly end has been finished as far as the crossing of the old road, and has been partially graded for the remaining portion to Blue Hill Avenue.

The circuit drive has been finished from valley gate eastward to its junction with the drive leading to Blue Hill Avenue, opposite Columbia Street. The walks near this part of the circuit drive have also been finished.

The entrance from Columbia Street has been completed and foundations laid for a gateway at the entrance to the Country Park.

The circuit drive on the southerly side of the park has been extended to its junction with the drive leading to the summit of Scarboro Hill.

The Scarboro Hill drive and the concourse at the summit of the hill have been completed, the latter requiring a retaining-wall to support it. The walk from the site of the proposed dairy to the top of Scarboro Hill has been finished, including a long flight of stone steps.

Loop Road has been entirely sub-graded, the gutters paved, drains and catch-basins constructed, and the roadway ballasted; there only remains the surfacing of the latter with crushed stone, when the road will be ready for use. This will require but a short time after spring opens. A retaining-wall, to support a portion of this drive, and a flight of stone steps on an approach from the circuit drive have been built.

About 1,500 linear feet of ride have been finished.

The fifteen-ton steam road roller, purchased in the spring, has been of great assistance in the construction of roads and walks.

Playstead Green. — The lower portions of this ground have been under-drained by the laying of 6,310 linear feet of agricultural tiles.

Boundary Wall. — This wall has been extended along Glen Lane as far as the crossing of the old Glen Road.

Ellicottdale. — This ground has been seeded, and is now completed, together with the walks around it, except a small part on the easterly side where the gardener's cottage stands, and where a road was left for the purpose of hauling stone from the quarry.

Nazingdale. — The channel of the brook has been excavated as far as the small pond south of Abbottswood; the pond has been deepened and the banks of both the pond and brook have been graded, so that this portion of the park may be considered finished.

Schoolmaster Hill. — The masonry-work of the proposed arbor for picnic parties has been nearly finished and two drinking-fountains built. A four-inch water-pipe was laid from the main pipe in circuit drive for supplying water to the fountains.

Miscellaneous. — The flock of sheep has increased during the year from 56 to 115, and the yield of wool was 347 lbs.

The six peafowl, purchased in the spring, have been kept at the Overlook; these have increased in number to eleven.

A flock of pigeons has been placed in the dove-cote in the Playstead Shelter.

The temporary skating pond in Nazingdale was not much used last winter as there were but few days when the ice was strong enough for skating; during the present winter, however, there have already been about two weeks of skating, and large numbers of young people have enjoyed it.

The following table shows the principal items of work completed to date, but it must not be understood as being a complete statement of the work done, as a large amount of labor has been expended on work which is yet unfinished, and therefore unclassified: —

Driveways completed	.	.	67,000 sq. yds., or $4\frac{1}{2}$ miles.
Walks completed	.	.	41,000 sq. yds., or $5\frac{2}{3}$ miles.
Ride completed	.	.	4,200 sq. yds., or 1,500 lin. ft.
Gutters paved	.	.	14,000 sq. yds.
Curbstone set	.	.	4,500 lin. ft.
6-in. water-pipe laid	.	.	3,000 lin. ft.
4-in. water-pipe laid	.	.	1,150 lin. ft.
Hydrants	.	.	7
Drinking-fountains	.	.	7
Bridge	.	.	1
Boundary wall	.	.	3,250 lin. ft.
2 ft. 9 in. brick drain	.	.	706 "
2 ft. \times 2 ft. 6 in. brick drain	.	.	180 "
2-ft. brick drain	.	.	769 "
18-in. pipe drain	.	.	2,623 "
15-in. pipe drain	.	.	2,895 "
12-in. pipe drain	.	.	1,546 "
10-in. pipe drain	.	.	1,844 "
8-in. pipe drain	.	.	6,737 "
4-in. pipe drain	.	.	190 "
4-in. agricultural tile drain	.	.	2,100 "
3-in. agricultural tile drain	.	.	3,520 "
2-in. agricultural tile drain	.	.	26,713 "

1½-in. agricultural tile drain	. 13,255 lin. ft.
Total drain . . . .	. 63,078 “
Man-holes . . . .	. 39
Catch-basins and inlets . .	. 126
Open channel for brook . .	. 2,300 lin. ft.
Area of ground graded and planted, or seeded . . . .	. 74 acres.

Loop Road has also been graded and ballasted, its length being about 3,200 linear feet.

MARINE PARK.

Iron Pier. — The last span connecting the iron pier with the pier-head has been put in place.

Pier-head. — The contract for building the pier-head was completed on September 3. As was anticipated there has been some settlement, but no damage has been done that cannot be repaired at small expense.

Filling. — The contract with Joseph E. White, dated Oct. 5, 1889, was modified on June 28, 1890, so that the amount of filling to be done under the contract should be 250,000 cubic yards. There have been deposited to date 205,000 cubic yards.

On September 10 a contract was made with Perkins & White for 400,000 cubic yards of filling. Under this contract there have been deposited to date 62,000 cubic yards.

Miscellaneous. — The railing on the wooden pier, the shelter on the wooden pier, and the Refectory building have been painted, and the walk from Q Street has been relaid.

WOOD ISLAND PARK.

The work of grading in progress at the beginning of the year was continued through the summer. All of the present upland, except a small portion at the northerly end of the playground, has been graded. The walks are sub-graded, but not surfaced.

The plantations have received a top dressing of stable manure and other fertilizers, and have been ploughed and seeded so that they can be planted in the spring.

All necessary drains have been constructed, there having been laid 5,612 linear feet of drains and 7 catch-basins and inlets built.

CHARLESBANK.

The boat landings were put in shape for use early in the spring by erecting railings and gates. A flagstaff was placed on the northerly landing. This landing has been occupied during the season by Mr. Partelow for the leasing of pleasure boats; he has had a float attached to the wall, and has kept a large number of boats, including a steam-launch.

A building is now being erected at the southerly end of the park in the lower story of which there will be a tool-room and offices for the foreman and boatman. The upper story is to be used as a dressing-room and lavatory for women; through it entrance can be had to the women's gymnasium.

The women's gymnasium ground has been fitted with frames to which will be attached apparatus similar to that in the men's gymnasium; this apparatus is completed in readiness for putting in place as soon as spring opens and the adjoining building is finished.

The men's gymnasium has been kept open throughout the year until December 13, when it was closed for the winter. In April a counter was attached to the turnstile at the entrance, and from April 8 to December 13 there passed through the entrance, as shown by the counter, 95,602 persons, an average of 447 each day, not including Sundays.

Since the gymnasium was closed the apparatus has been dismantled, and all movable parts have been stored under cover.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

STATUTES OF THE COMMONWEALTH AND ORDERS
OF THE CITY OF BOSTON CONCERNING
PUBLIC PARKS.

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 271.]

In the Year One Thousand Eight Hundred and Ninety.

AN ACT TO AUTHORIZE THE CITY OF BOSTON TO INCUR
INDEBTEDNESS OUTSIDE OF ITS DEBT LIMIT, TO PROCURE
AND CONSTRUCT ONE OR MORE PUBLIC PARKS IN THE
CHARLESTOWN DISTRICT OF THE CITY OF BOSTON.

*Be it enacted by the Senate and House of Representatives in
General Court assembled, and by the authority of the same, as
follows: —*

SECTION 1. The city of Boston, for the purpose of procuring
and constructing one or more public parks in the Charlestown
district of said city, may authorize the city treasurer of said city
to issue from time to time, as the mayor of said city may request,
bonds or certificates of indebtedness to an amount not exceeding
two hundred thousand dollars, to bear interest, payable semi-
annually at such rate not exceeding four per centum per annum,
as shall be fixed by said city.

SECT. 2. Said treasurer shall sell such bonds or certificates as
issued, and retain the proceeds thereof in the treasury of the city,
and pay therefrom the expenses incurred for the purpose afore-
said: *provided, however,* that he shall pay over to the board of
commissioners of sinking funds of said city any premiums
received by him in the sale of such bonds or certificates; and
said board shall place all amounts so paid by said treasurer into
the sinking fund for the payment of the loan hereby authorized.

SECT. 3. The indebtedness incurred under this act shall not,
until after the first day of November in the year eighteen hundred

and ninety, and then shall, be considered or reckoned in determining the authorized limit of indebtedness of the city of Boston under the provisions of section four of chapter twenty-nine of the Public Statutes as modified and amended by section two of chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-five.

SECT. 4. Whenever said city shall have authorized the city treasurer to issue bonds or certificates of indebtedness as provided in the preceding sections, the park commissioners of said city may take in fee, by purchase or otherwise, land in the Charlestown district of said city of an assessed value not exceeding one hundred and fifty thousand dollars, for one or more public parks, and may expend the balance of the proceeds of the bonds or certificates of indebtedness remaining after such lands have been paid for, in constructing or preparing such parks for public use.

SECT. 5. Said city shall, within thirty days from the time when it shall take any lands under this act, cause to be recorded in the office of the register of deeds for the county of Suffolk a description of the lands so taken, as certain as is required in a common conveyance of land, with a statement of the purpose for which such land is taken; said description and statement to be signed by the mayor of said city.

SECT. 6. The city of Boston shall pay all damages which shall be sustained by any person in his property by reason of any taking of land as aforesaid, and in case the parties cannot agree upon the damages, the city or any party interested may have the damages determined by a jury at the bar of the superior court for said county, in the same manner as a party may have damages caused by the taking of land for highways in said city determined when dissatisfied with an estimate of such damages made by the street commissioners of said city; and costs shall be taxed as in civil cases.

SECT. 7. This act shall take effect upon its passage.

(Approved May 5, 1890.)

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 839.]

AN ACT CHANGING THE BOUNDARY BETWEEN THE CITY OF BOSTON AND THE TOWN OF BROOKLINE.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—

SECTION 1. The boundary line between the city of Boston and the town of Brookline is hereby changed and established, as follows: Beginning at the stone boundary post in the present boundary line between Boston and Brookline near the corner of a greenhouse on land of Quincy A. Shaw, said post being marked B R on its northerly side and B O on its southerly side, and running north forty-one degrees, fifty minutes, fifty-four seconds east, six hundred and eighty-eight and forty-four hundredths feet, to the southerly side of Chestnut street; thence south forty-nine degrees, twenty-six minutes, one second east, five hundred and fifty-seven and two hundredths feet, by the southerly line of said Chestnut street to a point at its intersection with the continuation of the westerly line of Pond avenue; thence south eighty-five degrees, fifty-one minutes, seven seconds east, one hundred and seventy-two and seventy hundredths feet; thence north seventy-three degrees, fifty-four minutes, twenty-two seconds east, one hundred and fifty-nine and thirty-one hundredths feet; thence north forty-five degrees, fifty-eight minutes, fifty-five seconds east, one hundred and thirty-six and three hundredths feet; thence north fifteen degrees, forty-one minutes, forty-nine seconds east, seventy-five and fifty-four hundredths feet; thence north thirty-five degrees, thirty-seven minutes, seventeen seconds east, forty-four and sixty-two hundredths feet; thence north fifty-one degrees, thirty minutes, fifty-two seconds east, thirty and sixty-three hundredths feet; thence north seventy degrees, forty-eight minutes, fifty seconds east, forty-four and two hundredths feet; thence south eighty-eight de-

grees, thirty-one minutes, thirty-two seconds east, forty-seven and fifty-six hundredths feet; thence north fifty-five degrees, twenty-one minutes, forty-nine seconds east, thirty-three and sixty-five hundredths feet; thence south sixty-two degrees, fifty-three minutes, forty-three seconds east, twenty-five and thirty-five hundredths feet; thence north fifty-nine degrees, thirty-seven minutes, forty-seven seconds east, thirty-five and eighty-eight hundredths feet; thence south eighty-four degrees, fifteen minutes, twenty-two seconds east, sixteen and thirty-six hundredths feet; thence north seventy-three degrees, two minutes, no seconds east, twenty-three and fifty-one hundredths feet; thence north forty-eight degrees, sixteen minutes, fifty-seven seconds east, eighteen and ninety-two hundredths feet; thence north eighty degrees, forty-four minutes, forty-five seconds east, twenty-one and ninety-one hundredths feet; thence south sixty-seven degrees, thirty-nine minutes, forty-seven seconds east, twenty-six and four hundredths feet; thence north seventy-one degrees, two minutes, forty-two seconds east, twenty-one and eighty-four hundredths feet; thence north thirty-seven degrees, fifty-seven minutes, twenty seconds east, twenty-nine and six hundredths feet; thence north seventy degrees, twenty-two minutes, twenty seconds east, thirty-one and ten hundredths feet; thence south seventy-one degrees, ten minutes, seventeen seconds east, twenty-nine and forty-seven hundredths feet; thence north fifty-six degrees, forty-six minutes, eleven seconds east, one hundred and fourteen and seventy-six hundredths feet; thence north twenty-one degrees, thirty-one minutes, thirty-three seconds east, one hundred and sixty-three and twenty hundredths feet; thence north fourteen degrees, forty-three minutes, thirty-four seconds west, sixty-four and eighty-two hundredths feet; thence north twenty-three degrees, no minutes, five seconds east, twenty-nine and sixty-three hundredths feet; thence north nine degrees, thirty-nine minutes, eighteen seconds east, fifty-seven and fifty-five hundredths feet; thence north fourteen degrees, thirty-nine minutes, forty-five seconds west, forty-four and twenty-seven hundredths feet; thence north forty degrees, forty-seven minutes, fifty-seven seconds east, fifty and sixty-one

hundredths feet; thence north three degrees, six minutes, eleven seconds east, thirty-three and eighty-eight hundredths feet; thence north sixteen degrees, twenty-five minutes, thirty-eight seconds east, two hundred and fifty-five and sixty-three hundredths feet; thence north no degrees, thirty-five minutes, twenty-seven seconds east, one hundred three and forty-five hundredths feet; thence north seventeen degrees, thirty minutes, forty-three seconds west, sixty-nine and twenty hundredths feet; thence north two degrees, fifty minutes, seven seconds east, forty and eighty-two hundredths feet; thence north fifteen degrees, forty-three minutes, twenty-four seconds east, fifty and thirty-one hundredths feet; thence north thirty-three degrees, six minutes, nineteen seconds east, seventy-two and sixty hundredths feet; thence north forty degrees, thirty-nine minutes, four seconds east, two hundred and seventy-six and forty hundredths feet; thence north nineteen degrees, seventeen minutes, forty-eight seconds east, one thousand five hundred and eighty and eighty hundredths feet, to a point situated one hundred and sixty-three and twenty hundredths feet easterly from the centre line of Pond avenue measured at right angles thereto; thence north one degree, six minutes, twenty-six seconds east, three hundred and sixty-two and sixty-one hundredths feet; thence north thirty-three degrees, thirty-five minutes, twenty seconds east, three hundred and eighty-six and thirty-five hundredths feet; thence north eighteen degrees, forty minutes, forty-two seconds east, one hundred and ninety-six and forty-seven hundredths feet; thence north thirty-one degrees, forty-four minutes, sixteen seconds east, three hundred and eighty-five and eighteen hundredths feet, to a point situated eighty-seven feet easterly from the centre line of Brookline avenue and measured on the continuation of the southerly side line of Aspinwall avenue; thence north thirty-seven degrees, fifty-nine minutes, fifty-two seconds east, by a line parallel with and eighty-seven feet distant from the centre line of Brookline avenue, fifty feet; thence north thirty-nine degrees, thirty-seven minutes, twenty-two seconds east, three hundred and seventy and twenty-six hundredths feet; thence north fifty-two degrees, no minutes, eight seconds west, ninety-

seven and fifty hundredths feet, to the centre line of Brookline avenue, intersecting said line at right angles; thence on the continuation of the last-mentioned course for a further distance of ninety-seven feet; thence north thirty-four degrees, forty-seven minutes, forty-one seconds east, two hundred and seventeen and thirty hundredths feet; thence north thirty-four degrees, thirty-six minutes, sixteen seconds west, three hundred and ninety-one and forty-five hundredths feet; thence north forty-eight degrees, sixteen minutes, thirteen seconds west, ninety-nine and ten hundredths feet; thence north twenty-three degrees, three minutes, fifteen seconds east, four hundred and twenty-six and seventy-six hundredths feet; thence north nine degrees, ten minutes, forty seconds east, six hundred and eighty-seven and fifty-three hundredths feet; thence north twenty-three degrees, thirteen minutes, twenty-five seconds east, one hundred and seventy-three and sixty-seven hundredths feet; thence north thirty-nine degrees, fifteen minutes, eight seconds east, three hundred and fifty-seven and ninety-nine hundredths feet; thence north sixty-eight degrees, fifty-nine minutes, nine seconds east, three hundred and fourteen and thirty-six hundredths feet; thence north forty-one degrees, fifty-five minutes, six seconds east, one hundred and one and ninety-eight hundredths feet; thence north four degrees, forty-eight minutes, sixteen seconds east, one hundred and sixty-five and seventy-six hundredths feet; thence north fifty-eight degrees, twenty-five minutes, fifty-nine seconds east, five hundred and seven and nine hundredths feet; thence north forty-three degrees, thirty-seven minutes, twenty-five seconds east, four hundred and one and ninety-seven hundredths feet, to a point situated on the continuation southerly of the easterly line of St. Mary street, and four hundred and eighty-three and seventy-eight hundredths feet from the southerly side line of Monmouth street; thence north twenty degrees, fourteen minutes, eighteen seconds west, by the continuation of the said easterly line of St. Mary street, thirty feet to the present boundary line between Boston and Brookline. Said new boundary line is shown by a red line delineated on a plan drawn by Alexis H. French, dated February first, eighteen hundred and

ninety, entitled "Plan showing a proposed change in the boundary line between Boston and Brookline, Massachusetts," on file in the office of the Secretary of the Commonwealth.

SECT. 2. The inhabitants of the territory hereby set off from the city of Boston shall continue to have all the rights of such inhabitants of the city of Boston which they now have, and be subject to all the liabilities appertaining to such inhabitants of said city to which they are now subject, until they shall have acquired a new domicile according to law; and no person shall by virtue of the change of boundary hereby made acquire a settlement in the town of Brookline; but all persons residing on the territory hereby set off from the city of Boston, who at the present time have a settlement in the city of Boston, shall continue to have a settlement in said city until they shall have acquired a new settlement according to law; and nothing contained in this act shall be construed so as to impair in any way the rights of any person who may be in the process of acquiring a settlement in said city of Boston; and the inhabitants of the territory hereby set off from the town of Brookline shall continue to have all the rights of such inhabitants of the town of Brookline which they now have and be subject to all the liabilities appertaining to such inhabitants of said town to which they are now subject until they shall have acquired a new domicile according to law, and no person shall by virtue of the change of boundary hereby made acquire a settlement in the city of Boston; but all persons residing on the territory hereby set off from said town of Brookline, who at the present time have a settlement in the town of Brookline, shall continue to have a settlement in said town until they shall have acquired a new settlement according to law; and nothing contained in this act shall be construed so as to impair in any way the rights of any person who may be in process of acquiring a settlement in said town of Brookline.

SECT. 3. The city of Boston and the town of Brookline shall, notwithstanding this act, remain respectively liable for all damages for the taking of land or other acts done by the boards of park commissioners of said city and town respectively prior to

the passage of the act; and all remedies and proceedings for the recovery of such damages shall remain in all respects the same as if this act had not been passed.

SECT. 4. The city of Boston shall, within sixty days after the passage of this act, convey in fee simple to the town of Brookline all the land which said city has heretofore acquired for the park authorized by chapter one hundred and eighty-five of the acts of the year eighteen hundred and seventy-five and which is hereby set off from the city of Boston, but not including any buildings which may be thereon, to be held by said town for the purposes of said park; and the town of Brookline shall in like manner, within sixty days after the passage of this act, convey in fee simple to the city of Boston, to be held by said city for the purposes of said park, all the land which said town has heretofore acquired for said park and which is hereby set off from the town of Brookline, but not including any buildings which may be thereon; and said town shall also pay to said city of Boston twenty thousand dollars, to be held by the city treasurer, subject to the requisitions of the board of park commissioners of the city of Boston, in payment for the lands taken for said park; and the park commissioners of said town may apply to the payment of said sum any moneys heretofore appropriated by said town for the acquisition of land within said town for the park authorized by said chapter one hundred and eighty-five of the acts of the year eighteen hundred and seventy-five; and in computing for the assessment of betterments the expense of the location and laying out of so much of said park as shall after the passage of this act be within the limits of the town of Brookline, there may be included the said sum of twenty thousand dollars and the actual cost to said town of the land heretofore acquired for said park in said town and hereby set off from said town; and in computing for the assessment of betterments the expense of the location and laying out of so much of said park as shall after the passage of this act be within the limits of the city of Boston, there may be included the actual cost to said city of the land heretofore acquired for said park in said city and hereby set off from said city.

SECT. 5. The park commissioners of the town of Brookline may agree with the directors of the Boston and Albany Railroad Company upon any change of the location of the railroad in said town of Brookline which said park commissioners may think expedient, and said railroad company, and said park commissioners on behalf of said town, may by appropriate conveyances exchange any lands in said town in order to consummate such agreement; and in case of such conveyance, without further proceedings, said railroad company shall acquire title for all railroad purposes to the land conveyed to it by said park commissioners, and the town of Brookline shall acquire title for park purposes to the land in said town conveyed to it by said railroad company.

SECT. 6. This act shall take effect upon its passage.

(Approved May 27, 1890.)

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 444.]

In the Year One Thousand Eight Hundred and Ninety.

AN ACT TO AMEND AN ACT AUTHORIZING THE CITY OF BOSTON TO INCUR INDEBTEDNESS OUTSIDE OF ITS DEBT LIMIT TO PROCURE AND CONSTRUCT ONE OR MORE PUBLIC PARKS IN THE CHARLESTOWN DISTRICT OF THE CITY OF BOSTON.

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows: —

SECTION 1. Section three of chapter two hundred and seventy-one of the acts of the year eighteen hundred and ninety is hereby amended by striking out the words “until after the first day of November in the year eighteen hundred and ninety, and then

shall," in the first, second, and third lines thereof, so that said section, as amended, shall read as follows: "Section 3. The indebtedness incurred under this act shall not be considered or reckoned in determining the authorized limit of indebtedness of the city of Boston under the provisions of section four of chapter twenty-nine of the Public Statutes, as modified and amended by section two of chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-five."

SECT. 2. This act shall take effect upon its passage.

(Approved June 28, 1890.)

CITY OF BOSTON,

IN COMMON COUNCIL, Feb. 6, 1890.

Ordered, That for the purpose of purchasing, or taking and paying for, such additional lands for public parks as the Board of Park Commissioners of said city shall deem desirable and necessary, the City Treasurer is hereby authorized to issue and sell negotiable bonds, or certificates of indebtedness of the city of Boston to the amount of six hundred thousand dollars, payable on Jan. 1, 1920, and bearing interest at the rate of three and one-half per cent. per annum, payable semi-annually on January 1 and July 1 in each year, and to be denominated on the face thereof, "The Public Park Loan," the same to be dated and interest to commence on the day when they are delivered and the money received, and the Park Commissioners are hereby authorized to expend said sum for said purpose.

Ordered, That any premiums or gain obtained by the Treasurer in the negotiation or sale of said bonds, or certificates of indebtedness, shall be paid to the Board of Commissioners of Sinking Funds, and by them applied to the redemption of the Public Park Loans. Passed. Yeas 66, nay 1.

Sent up for concurrence.

In Board of Aldermen, February 10. Concurred. Yeas 10, nays 2.

Approved by the Mayor, Feb. 11, 1890.

CITY OF BOSTON,
IN COMMON COUNCIL, Nov. 20, 1890.

Ordered, That the Board of Park Commissioners be hereby authorized to sell at public auction, or otherwise, grass, wood, old material, and buildings or structures upon park lands and not required for park purposes.

Passed. Sent up for concurrence.

In Board of Aldermen, Nov. 24, 1890. Concurred.

Approved by the Mayor, Nov. 26, 1890.

**SCHEDULE OF PROPERTY BELONGING TO THE
PARK DEPARTMENT, DEC. 31, 1890.**

PUBLIC PARKS.

	Area.
Franklin Park	520 acres.
Marine Park, including Castle Island	290 “
Arnold Arboretum	169 “
Parkway, Old Harbor	145 “
Parkway, Back Bay Fens	114 “
Parkway, Muddy River	92 “
Wood Island Park	81 “
Charlesbank	10 “
	<hr/> 1,421 “

PERMANENT STRUCTURES.

Franklin Park. — Ellicott Arch.

- | | | |
|---|---|---|
| “ | “ | Park wall and gateways, iron gates. |
| “ | “ | The Playstead Shelter, flag-staff and fittings. |
| “ | “ | Water-pipes, drinking-fountains, and hydrants. |
| “ | “ | Curbs, gutters, drains, catch-basins, etc. |

Marine Park. — Iron pier, pier-head, granite-curb.

Arnold Arboretum. — Walls and gateways.

Parkway, Back Bay Fens. — Boylston Bridge.

- | | | | |
|---|---|---|--|
| “ | “ | “ | Charlesgate Bridge. |
| “ | “ | “ | Agassiz Bridge. |
| “ | “ | “ | Railroad Bridge. |
| “ | “ | “ | Stony-brook Gate-House and Conduit. |
| “ | “ | “ | Retaining-wall, Curb, and Iron Fence. |
| “ | “ | “ | Water-pipes and hydrants. |
| “ | “ | “ | Drains, curbs, gutters, catch-basins, etc. |

Parkway, Muddy River. — Muddy-river Gate-House and Conduit.

Wood Island Park. — Neptune Bridge.

“ “ Drains, Catch-basins, etc.

Charlesbank. — Men's lavatory building and open-air gymnasium.

“ Women's “ “ “ “

“ Sea-wall, iron railing, flag-staff, and fittings.

“ Iron fence around men's gymnasium.

“ Water-pipes, drinking-fountains, etc.

“ Drains, catch-basins, etc.

TEMPORARY STRUCTURES.

Franklin Park. — Three temporary shelters.

“ “ Propagating house.

Marine Park. — Refectory building, fence, and temporary pier.

Parkway, Back Bay Fens. — Wooden fence, wharf, and sluice-gates.

OLD BUILDINGS.

Franklin Park. — Eight houses and seven barns.

Parkway, Muddy River. — Thirty-nine houses and thirteen barns.

MISCELLANEOUS.

Two horses, buggy, sleigh, etc., for use of the Engineer in charge.

SCHEDULE OF PROPERTY. — *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Acid, Muriatic, lbs.		30	100				130 lbs.
Adzes	2	1					3
Anchors	14						14
Anvils	3	2					5
Augers	40	10	5				55
Axes	6	46	19	1	1		73
Axle grease, boxes	6	8					14
Badges				112			112
Bases		80					80
Babbit metal, lbs.		20	12				32 lbs.
Barrels	15		1	1			17
Bars, claw	1	1	1				3
“ crow	21	65	18	4	2	1	111
“ pinch	6	4	2				12
“ sledge	4						4
“ tamping	4	2					6
Basins	6	50	2	13	1		72
Baskets	7	14	1	4			26
Bells	1	1					2
Bellows	2			1			3
Belts	7						7
Benches	2		1				3
Bits	13	26	12	13	3		67
Bit stocks	2	1	1	1	1		6
Blocks	93	36	4				133
Bolts	500	300	190				990
Boats	5					1	6
Boats, tow	1						1
Boilers		2					2
Boots, rubber, pairs	82	19	18	1	5	6	81 pairs.

SCHEDULE OF PROPERTY.— *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Borax, lbs.	17	25	. . . .	. . . .	. . . .	. . . .	42 lbs.
Boring machines	1	1	. . . .	. . . .	. . . .	. . . .	2
Brands	10	2	2	. . . .	. . . .	. . . .	14
Bricks, common	2,000	5,000	1,800	. . . .	. . . .	. . . .	8,800
Brooms	25	58	5	9	2	. . . .	99
Brushes	58	40	6	8	8	. . . .	115
Buildings, Temporary	81	19	4	. . . .	2	. . . .	56
Caps, Fulminating, boxes . . .	10	4	. . . .	. . . .	. . . .	. . . .	14 bxs.
Calipers, pair	1	. . . .	. . . .	. . . .	. . . .	. . . .	1 pair.
Cans	57	. . . .	12	10	7	4	90
Cant hooks	7	2	. . . .	. . . .	. . . .	. . . .	9
Canvas, pieces	3	2	. . . .	. . . .	. . . .	. . . .	5 pieces
Cases, show . . . . .	. . . .	2	. . . .	. . . .	. . . .	. . . .	2
Cement Portland, bbls.	2	4	1	. . . .	. . . .	. . . .	7 bbls.
" Rosendale, bbls.. . . .	4	24	1	. . . .	. . . .	. . . .	29 bbls.
Chains	46	23	13	. . . .	. . . .	. . . .	82
Chairs	26	74	13	14	1	. . . .	128
Checks . . . . .	. . . .	1,600	. . . .	141	. . . .	. . . .	1,741
Chests	1	1	4	. . . .	. . . .	. . . .	6
Chisels	7	7	10	3	3	. . . .	30
Clamps, pairs	5	1	. . . .	. . . .	. . . .	. . . .	6 pairs.
Clocks	1	4	1	2	. . . .	. . . .	8
Coal, anthracite, tons	16	53	. . . .	. . . .	. . . .	. . . .	69 tons.
" bituminous, tons . . . .	. . . .	20	. . . .	. . . .	. . . .	. . . .	20 tons.
Copying presses	1	2	. . . .	. . . .	. . . .	. . . .	3
Covers, M. H. & C. B. . . . .	. . . .	12	. . . .	. . . .	. . . .	. . . .	12
Crushers	1	1	1	. . . .	. . . .	. . . .	3
Crusher cheeks	22	12	. . . .	. . . .	. . . .	. . . .	34
" plates	30	3	. . . .	. . . .	. . . .	. . . .	33
" toggles	10	20	. . . .	. . . .	. . . .	. . . .	30

SCHEDULE OF PROPERTY.— *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Cuspidores . . . . .	.....	7	4	3	.....	.....	14
Derricks	3	2	3	.....	.....	.....	8
Desks	4	7	1	3	1	.....	16
Dies	13	20	.....	.....	.....	.....	33
Dippers	35	45	3	23	9	.....	115
Drags	1	7	2	.....	.....	.....	10
Draw knives	1	1	1	.....	.....	.....	3
Dredger	1	.....	.....	.....	.....	.....	1
Dung forks	15	12	.....	.....	.....	.....	27
Dusters	1	5	2	2	.....	.....	10
Ducks	4	.....	.....	.....	.....	.....	4
Dumb bells, pairs . . . . .	.....	.....	.....	9	.....	.....	9 pairs.
Engines	3	2	1	.....	.....	.....	6
Erasers	2	3	.....	.....	.....	.....	5
Eveners . . . . .	.....	9	2	.....	.....	.....	11
Electrical machines . . . . .	.....	2	1	.....	.....	.....	3
Electric lighter . . . . .	.....	.....	.....	.....	.....	1	1
Faucets	8	.....	3	.....	.....	.....	11
Filers	10	8	2	.....	.....	.....	20
Files	133	50	25	5	1	.....	214
Forges . . . . .	.....	1	1	.....	.....	.....	2
Fuse, ft.	1,100	1,800	.....	.....	.....	.....	2,900 ft.
Forks, spading	18	21	.....	6	2	.....	47
" weeding . . . . .	.....	12	.....	.....	.....	.....	12
" hay . . . . .	.....	10	.....	.....	.....	.....	10
Geese	9	.....	.....	.....	.....	.....	9
Globes	119	28	4	16	.....	12	179
Grade lines, balls	2	24	.....	.....	.....	.....	26
Grass seed, bags . . . . .	.....	.....	.....	.....	3	.....	3 bags.
Grindstones	7	3	1	1	.....	.....	12

SCHEDULE OF PROPERTY. — *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Grub hoes			8				8
Guys	8	33					41
Hammers, brick	1						1
" claw	5	4	3	1	1		14
" cracking	5	28			12		45
" hand	11	30	7	1	1		50
" paving	5		2				7
" pean	2	7			3		12
" pile	4						4
" sledge	20	144	37	4	2	1	203
Handles, adze	9						9
" axe	14	9	15				38
" door	6						6
" hammer	67	100	10	8	19		204
" hoe	10		3				13
" pick	97	60		15	54	13	239
Handspikes	6						6
Harrows	1	3			2		6
Hatchets	8	6	1	2	2	1	20
Hats, rubber	7						7
Hinges, pairs	91	12	12				115 prs.
Hods, brick	5	5	4				14
" coal	8	16	2	3	2	1	32
" mortar	2	3	2				7
Hoes	55	39	16	8	1	4	123
Horses, wooden	28		31				59
Hose, ft.	1,100	1,100	800	600			3,100 ft.
" nozzles	3			2			5
" reels	3			1			4
sprinklers		3		1			

SCHEDULE OF PROPERTY.— *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Hurdles, setts . . . . .	.....	.....	.....	10	.....	.....	10 setts.
Inkstands	5	4	4	2	2	.....	17
Iron, Norway, bars . . . . .	.....	20	.....	.....	.....	.....	20 bars.
Jackets, rubber	14	.....	.....	.....	.....	.....	14
Jackscrews	73	14	8	.....	.....	.....	95
Ladders	16	10	10	2	.....	.....	38
Ladles	1	2	1	.....	.....	.....	4
Lamps	6	6	4	.....	1	.....	17
Lamp wicks, doz.	15	18	8	.....	.....	.....	41 doz.
Lanterns	33	24	20	12	1	11	106
Lawn-mowers	6	11	.....	2	.....	.....	19
Lead, white, lbs.	75	40	100	.....	.....	.....	215 lbs.
Levels	6	10	1	1	1	.....	19
Lewises	8	.....	1	.....	.....	.....	9
Life preservers . . . . .	.....	.....	.....	10	.....	12	22
Locks	2	3	.....	3	.....	.....	8
Lumber, spruce, ft. . . . .	.....	19,000	.....	.....	.....	.....	19,000 ft.
Lounges . . . . .	.....	2	.....	.....	.....	.....	2
Mallets	2	1	.....	.....	.....	.....	3
Marline, lbs.	50	30	.....	.....	.....	.....	80 lbs.
Marline spikes	1	1	1	12	.....	.....	15
Match safes	1	2	2	.....	.....	.....	5
Mats	1	36	3	2	.....	.....	42
Mattocks	2	60	33	.....	.....	.....	95
Mauls	12	2	.....	2	3	.....	19
Measures, sett . . . . .	.....	1	.....	.....	.....	.....	1 sett.
Measuring rods	3	1	.....	.....	1	.....	5
Mirrors	1	6	1	3	.....	.....	11
Mops	5	11	.....	7	.....	.....	23
Mucilage stands	2	3	.....	2	1	.....	8

SCHEDULE OF PROPERTY — *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Mowers' horse . . . . .	.....	4	.....	.....	.....	.....	4
Nails, cut, kgs.	82	7	2	.....	.....	.....	41 kegs.
Nail setts	1	2	1	.....	.....	.....	4
Nippers	4	1	1	1	.....	.....	7
Oars	20	.....	.....	.....	.....	4	24
Oil, black, gal.	20	25	.....	.....	.....	.....	45 gal.
" kerosene, gal.	75	50	50	.....	.....	.....	175 "
" linseed, gal.	20	10	.....	.....	.....	.....	30 "
Oil stove . . . . .	.....	1	.....	.....	.....	.....	1
Oil tanks	2	1	.....	.....	.....	2	5
Padlocks	41	8	9	.....	1	.....	59
Pails, cement	5	6	4	.....	2	.....	17
" water	49	79	8	8	10	.....	149
Paint, lbs.	235	125	.....	40	.....	20	420 lbs.
Paper, tarred, rolls	8	6	1	.....	1	.....	11 rolls.
Pea fowl . . . . .	.....	11	.....	.....	.....	.....	11
Phosphate, bags . . . . .	.....	.....	.....	.....	28	.....	28 bags.
Picks	60	224	98	14	50	7	453
Pipe, drain, ft.	180	750	180	.....	.....	.....	1,110 ft.
Pipe fittings:—							
Cocks	22	8	.....	.....	.....	.....	25
Couplings . . . . .	.....	80	8	.....	.....	.....	88
Elighth bends . . . . .	.....	8	.....	.....	.....	.....	8
Elbows . . . . .	.....	56	.....	.....	.....	.....	56
Nipples . . . . .	.....	40	.....	.....	.....	.....	40
Plugs . . . . .	.....	7	.....	.....	.....	.....	7
T's . . . . .	.....	4	.....	.....	.....	.....	4
Unions . . . . .	.....	20	.....	.....	.....	.....	20
Pile-drivers	2	.....	.....	.....	.....	.....	2
Pitchforks . . . . .	.....	7	8	.....	.....	.....	10

SCHEDULE OF PROPERTY. — *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Planes	2	7	3	...	...	...	12
Plows	1	6	1	...	5	...	13
Plumbobs	3	...	1	1	1	...	6
Pots, flower . . . . .	...	3	...	...	...	...	3
" watering	12	8	1	13	...	...	34
Powder, Atlas, cases	3	10	...	...	...	...	13
Pumps	4	9	4	...	...	...	17
Punches	21	1	2	...	...	...	24
Quolts . . . . .	...	...	...	24	...	...	24
Rakes, drag . . . . .	...	6	...	...	...	...	6
Rake, horse . . . . .	...	1	...	...	...	...	1
Rakes, iron	18	77	10	8	6	3	122
" wood	12	35	2	3	...	...	52
Rammers	25	1	8	1	...	...	35
Rolls, iron	26	...	...	...	...	...	26
" wooden	48	...	4	...	...	...	52
Rollers, garden	1	2	...	1	...	...	4
" road	5	11	1	1	2	...	20
" steam . . . . .	...	1	...	...	...	...	1
Rowlocks	2	...	...	...	...	6	8
Rules	9	15	6	1	1	...	32
Rope, Manilla, coils . . . . .	...	...	...	2	...	...	2
Saws, cross-cut	8	5	2	3	...	...	18
" hand	9	9	4	...	2	...	24
" wood	2	2	2	1	...	...	7
Settees	106	...	...	101	...	...	207
Sashes, hot-bed . . . . .	...	79	...	...	...	...	79
Scrapers	6	4	2	2	...	...	14
Screens	16	10	5	3	...	...	34
Screw drivers	9	2	2	1	1	1	16

SCHEDULE OF PROPERTY.— *Continued.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Scows	5	.....	.....	.....	.....	.....	5
Screws, boxes	43	12	.....	.....	.....	.....	55 boxes.
Scythes	6	26	2	...	1	...	35
Scythe snaths	6	7	2	...	1	...	16
Shackles . . . . .	.....	35	6	.....	.....	.....	41
Shears, pairs	5	3	.....	3	.....	.....	11
Sheep . . . . .	.....	115	.....	.....	.....	.....	115
Shot, 56 lbs. . . . .	.....	.....	.....	1	.....	.....	1
Shingles, bundles	5	20	.....	.....	.....	.....	25
Shovels	214	352	35	20	60	12	693
" long handle	15	10	11	2	...	2	40
" spoon	8	7	4	1	.....	.....	20
" stove	9	4	2	3	2	1	21
" snow	14	6	9	14	...	.....	45
Sickles	1	13	.....	1	...	1	16
Signs	73	.....	.....	8	11	6	98
Soda Fountains . . . . .	.....	2	.....	.....	.....	.....	2
Snow ploughs	1	.....	1	...	.....	.....	2
Spades	42	58	6	11	5	...	122
Spikes, cut, kegs	10	.....	.....	.....	.....	.....	10 kegs.
" wrought, kegs	4	.....	.....	.....	.....	.....	4 kegs.
Squares	5	5	2	...	.....	.....	12
Stamps, iron	19	.....	3	...	.....	.....	22
Steam driller . . . . .	.....	3	.....	.....	.....	.....	3
Steel, bars	2	40	2	...	.....	.....	44 bars.
Stone scales, Fairbank's	1	2	.....	...	.....	.....	3
Stone tools	Chisels	78	24	...	.....	.....	102
	Drills	42	306	181	3	15	547
	Points	56	170	.....	.....	.....	226
	Setts	24	.....	.....	.....	.....	24

SCHEDULE OF PROPERTY. — *Concluded.*

	Back Bay.	Franklin Park.	Arboretum.	Charlesbank.	Wood Island.	Marine Park.	Total.
Stoves	15	19	3	3	2	1	43
Tables	8	3	3	...	...	...	14
Tapes	5	15	4	...	...	...	24
Thermometers	1	3	...	...	1	...	5
Tile drain, feet . . . . .	...	400	...	...	...	...	400 feet.
Tongs, pairs	37	28	4	...	...	...	69 pairs.
Tool boxes	10	24	...	...	2	...	36
Towels, dozen	1	109	1	38	...	...	149 doz.
Trowels	35	22	1	7	1	...	66
Tubs	13	2	...	...	...	...	15
Twine, balls	23	33	12	...	...	...	68 balls.
Umbrella stands	1	1	...	1	...	...	3
Vises	4	5	2	1	...	...	12
Wagon jacks	1	...	...	...	...	...	1
Waste, lbs.	55	40	10	...	...	...	135 lbs.
Water coolers	1	1	...	1	...	...	3
Water glasses	19	20	1	...	...	...	40
Watering carts	2	2	...	...	...	...	4
Wedges	8	20	14	...	4	...	46
Winches	2	...	...	...	...	...	2
Wheelbarrows	87	150	17	12	23	3	292
Whiffletrees	13	9	4	...	...	...	26
Wire, feet . . . . .	...	400	...	...	...	...	400 feet.
Wrenches, key . . . . .	...	...	1	...	...	...	1
" monkey	10	13	3	1	1	1	29
" pipe	4	1	1	...	...	...	6
" S . . . . .	...	2	3	...	...	...	5
" socket	9	4	1	...	...	...	14
" fork	28	...	...	1	...	...	29
" Stillson . . . . .	...	5	...	1	...	...	6
" hydrant	12	...	...	2	...	...	14



City of Boston.

DEPARTMENT OF PARKS.

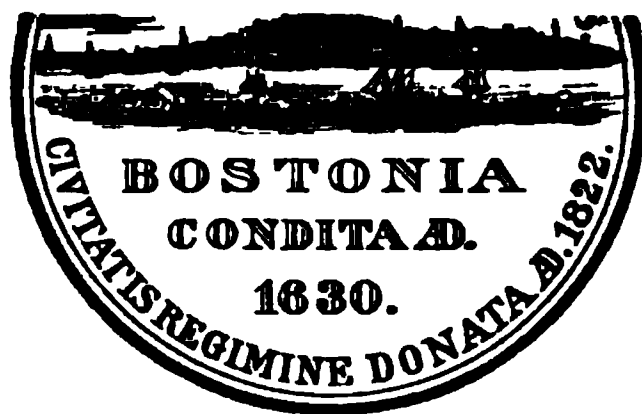
SEVENTEENTH ANNUAL REPORT

OF THE

WITH THE COMPLIMENTS OF

THOMAS L. LIVERMORE,
FRANCIS A. WALKER,
PAUL H. KENDRICKEN,

COMMISSIONERS OF PARKS.



PRINTED FOR THE DEPARTMENT.

1892.



City of Boston.

DEPARTMENT OF PARKS.

SEVENTEENTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

FOR THE

THIRTEEN MONTHS ENDING JANUARY 31, 1892.



PRINTED FOR THE DEPARTMENT.

1892.

ROCKWELL AND CHURCHILL,
CITY PRINTERS,
BOSTON.

REPORT.

Mayor of the City of Boston:

Amount paid for land	\$21,374 25
--------------------------------	-------------

MUDDY RIVER.

Balance unexpended Dec. 31, 1890	\$4,920 96	
Amount transferred from loan for Public Park Lands	112,882 62	
	<u> </u>	<u>\$117,803 58</u>

Expenditures.

Amount paid for land	\$113,072 29	
Balance unexpended Jan. 31, 1892	4,731 29	
	<u> </u>	<u>\$117,803 58</u>

JAMAICA POND

Amount transferred from loan for Public Park Lands	<u>\$55,269 79</u>
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Expenditures.

Amount paid for land	<u>\$55,269 79</u>
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OLD HARBOR.

Amount transferred from loan for Public Park Lands	<u>\$42,994 52</u>
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Expenditures.

Amount paid for land	\$42,217 12	
Amount paid for surveying and appraising lands	777 40	
	<u> </u>	<u>\$42,994 52</u>

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction	\$345,676 20	
Amount transferred from appropriation for Main- tenance	17,628 65	
	<u> </u>	<u>\$363,304 85</u>

EXPENDITURES FOR CONSTRUCTION.

BACK BAY FENS.

Filling.

Amount paid under contract for filling	\$54,707 55	
Advertising	80 76	
	<u> </u>	<u>\$54,738 31</u>
<i>Amount carried forward,</i>		<u>\$54,738 31</u>

Amount brought forward, \$54,788 81

Excavating, Grading, Loam, and General Work.

Grading : labor and materials,	\$22,280 87	
Dredging : labor and mate-		
rials	10,839 42	
Superintendence and general		
work	6,212 11	
Loam : labor and materials .	5,698 91	
Engineering expenses . . .	5,282 91	
	<hr/>	50,264 22

Roadways, Sidewalks, Gutters, and Drainage.

Roadways : labor and mate-		
rials	\$28,707 99	
Gutters : labor and materials,	7,859 22	
Curbs and walks : labor and		
materials	5,808 25	
Drainage : labor and mate-		
rials	2,005 04	
	<hr/>	39,875 50

Stony-brook Bridge.

Amount paid under contract,	\$28,042 85	
Plans and superintendence .	928 55	
Labor	830 20	
Advertising	95 86	
	<hr/>	29,896 96

Fen Bridge.

Amount paid under contract,	\$20,490 00	
Labor and materials . . .	6,913 25	
Printing	85 16	
	<hr/>	27,488 41

Retaining-wall and Culvert.

Amount paid under contract,	\$8,042 00	
Labor and materials . . .	198 30	
Advertising	85 00	
	<hr/>	8,275 30

Plantations.

Labor and expenses	4,881 98	
	<hr/>	
<i>Amount carried forward,</i>		\$214,870 68

<i>Amount brought forward,</i>	\$214,870 68	
<i>Commonwealth Avenue.</i>		
Labor, regrading mounds	4,216 62	
<i>Agassiz Bridge.</i>		
Labor and materials	8,619 55	
<i>Plans and Designs.</i>		
F. L. Olmsted & Co., landscape architects, and expenses . . .	\$916 62	
A. H. French, surveying	52 00	
	<hr/>	968 62
<i>Water Supply.</i>		
Water-pipes and labor	228 81	
<i>Stony-Brook Gate-House.</i>		
Labor and materials	61 43	
	<hr/>	\$223,465 71
RIVERWAY AND JAMAICAWAY.		
<i>Excavating, Grading, Loam, and General Work.</i>		
Amount paid under contracts		
for grading	\$108,988 57	
Engineers and expenses	5,866 21	
Bulkhead: labor and materials	1,882 79	
Loam, amount paid under contract	\$1,750 17	
Loam	21 00	
	<hr/>	1,771 17
Grading: labor and materials,	1,840 86	
Sewers: amount paid for rebuilding sewers	756 85	
Superintendence and general work	187 50	
Borings: labor and materials,	140 50	
Grading: advertising	74 25	
	<hr/>	\$120,458 20
<i>Amounts carried forward,</i>	\$120,458 20	\$223,465 71

Amounts brought forward, \$120,458 20 \$223,465 71

Plans and Designs.

F. L. Olmsted & Co., landscape architects, and expenses	\$1,068 34	
A. H. French, surveying	529 58	
	<hr/>	1,597 92

Filling.

Advertising	154 37	
	<hr/>	122,210 49
		<hr/>
		\$345,676 20

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen: labor and expenses	\$13,262 93	
Repairs of covered channel Stony Brook and Gatehouse	24 76	
Repairs of covered channel Muddy River and Gatehouse	3 44	
Signs and notices	3 00	
	<hr/>	\$13,294 13

Park Police.

Pay of Park Keepers	\$4,049 75	
Pay of Sub-Keepers	236 44	
Police equipments and supplies :	48 33	
	<hr/>	4,334 52
		<hr/>
		17,628 65
		<hr/>
		<u>\$368,804 85</u>

ARNOLD ARBORETUM.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$33,980 29	
Amount transferred from appropriation for Maintenance	4,837 67	
	<hr/>	\$38,817 96
		<hr/>

EXPENDITURES FOR CONSTRUCTION.

Roads and Walks.

Amount paid under contract for grading,	\$21,612 25	
Expenses of construction, labor, etc.	7,949 17	
Engineers and expenses	2,237 18	
Materials of construction, freight, etc.	974 84	
Drainage	964 11	
Fuel, supplies, carting, etc.	62 09	
	<hr/>	\$33,799 09

Plans and Designs.

Landscape architects and expenses	149 70
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Plantations.

Plants	31 50
	<hr/>
	33,980 29

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers	\$2,804 21
-------------------------------	------------

Care of Grounds and Buildings.

Watchmen, labor, and expenses	2,033 46	
	<hr/>	4,837 67
		<hr/>
		\$38,817 96

FRANKLIN PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park	
Construction	\$189,453 61
Amount transferred from appropriation for Main-	
tenance	29,130 82
	<hr/>
	\$218,584 43

EXPENDITURES FOR CONSTRUCTION.

Roads and Walks.

Grading roads and walks	. \$41,636 00
Surfacing roads and walks	. 89,827 24
Paving-blocks . . .	. 8,486 84
Granite steps . . .	. 2,187 00
Paving . . . . .	. 808 80
Curbs and gutters . . .	. 73 90
	<hr/> \$87,518 78

Clearing and Grading Grounds, Drainage, and General Work.

Grading grounds . . .	. \$26,885 52
Engineers and expenses	. 8,408 48
Superintendence and general work . . . . .	. 7,481 91
Drainage . . . . .	. 5,997 45
Clearing grounds . . .	. 4,869 21
Damages, for injury to laborers 585 00
	<hr/> 58,722 52

Plantations.

Labor and expenses 15,722 20
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Scarboro' Pond.

Labor and materials 9,882 16
-------------------------------	------------

Arbor, Schoolmaster Hill.

Labor and materials 8,495 77
-------------------------------	------------

Park Walls and Gateways.

Materials, labor, and expenses 6,976 80
--------------------------------------	------------

Ellicottdale.

Labor and materials 2,119 87
-------------------------------	------------

Plans and Designs.

Landscape architects and expenses	. 2,038 89
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<i>Amount carried forward,</i>	<hr/> \$185,966 99
--------------------------------	--------------------

Amount brought forward, \$185,966 99

Culverts.

Materials, labor, and expenses . . . 1,519 19

Structures.

Shelter at Carriage Stand,
labor and materials . . . \$1,210 28
The Shelter at Overlook,
labor and materials . . . 1 20
— 1,211 43

Machinery, Tools, and Implements.

Sprinkler 736 00

Live Stock.

Peafowl 20 00
— \$189,453 61

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Labor and expenses . . . \$16,054 19
Signs and notices . . . 125 75
— \$16,179 94

Park Police.

Pay of Park Keepers . . .	\$11,226 57			
Pay of Sub-Keepers . . .	1,187 19			
Equipments and supplies . . .	537 12			
	12,950 88			
		29,130 82		
			\$218,584 43	

CHARLESBANK.

LAND ACCOUNT.

Amount transferred from sale of city property . . .	\$2,869 02	
Amount transferred from loan for Public Park Lands, . . .	161 52	
		\$3,030 54

Expenditures.

Amount paid for land damages to West Boston Bridge Com- missioners	\$3,030 54
---	------------

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park

Construction \$19,621 43

Amount transferred from appropriation for Main-

tenance 12,524 08

\$32,145 51**EXPENDITURES FOR CONSTRUCTION.***Structures.*

Amount paid under contract

for Women's Lavatory

Building \$6,892 70

Labor, expense, and furnish-

ing 1,001 49

Shelter, children's playground, 860 00

\$8,754 19*Walks and Drainage.*

Sidewalk, amount paid under

contract \$4,822 10

Labor 405 40

Advertising 112 73

Curbs 66 51

Drainage 52 20

5,458 94*Gymnasium Grounds, Grading, Loam, and General Work.*

Women's gymnastic appara-

tus \$928 67

Men's gymnasium grounds:

Electric-light posts . . . 585 90

General work 480 87

Women's gymnasium grounds:

Labor and expenses . . . 414 62

Engineering expenses . . . 267 58

Fence 193 23

Loam 190 00

Grading, labor 57 00

3,067 87*Amount carried forward,*\$17,281 00

12

Amount brought forward, \$17,281 00

Plantations.

Labor 2,155 35

Plans and Designs.

Plans for Lavatory Building		
for Women	\$175 13	
Landscape architects and ex-		
penses	9 95	
	<hr/>	185 08
		<hr/>
		\$19,621 43

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Labor and expenses	\$8,586 92
Signs and notices	7 50
	<hr/>
	\$8,594 42

Park Police.

Pay of Park Keepers	\$3,766 56	
Pay of Sub-Keepers	125 20	
Police equipments and sup-		
plies	37 90	
	<hr/>	3,929 66
		<hr/>
		12,524 08
		<hr/>
		<u>\$32,145 51</u>

MARINE PARK.

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park	
Construction	\$199,652 81
Amount transferred from appropriation for Main-	
tenance	5,144 87
	<hr/>
	<u>\$204,797 18</u>

EXPENDITURES FOR CONSTRUCTION.

Filling, Grading, Loam, and General Work.

Amount paid under con- tracts with Jos. E. White, and Perkins & White, for filling .	\$166,821 28
Amount paid under con- tract for loam	4,253 40
Grading, labor, and mate- rials	513 93
General work, labor, and materials	239 50
Advertising loam contract,	37 50
	<hr/> \$171,865 61

Structures.

Amount paid W. L. Miller under contract for tem- porary bridge	\$16,478 51
Amount paid under contract with Perkins & White, for bulkhead	4,985 00
Inspection and engineering expenses	4,044 39
Amount paid under contract with Shailer & Schniglau, for iron pier	885 00
Pier-head, labor and mate- rials	384 60
Refectory building	308 13
Iron pier labor and materials,	52 47
Printing bridge contract .	28 61
Advertising bridge contract .	27 13
Advertising bulkhead con- tract	11 00
	<hr/> 27,204 84

Settees.

Settees and freight	482 00
<i>Amount carried forward,</i>	<hr/> \$199,552 45

Amount brought forward, \$199,552 45

Plans and Designs.

Landscape architects and expenses	.	100 36	
		————	\$199,652 81

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Watchmen, labor, and expenses . . . \$2,957 38

Park Police.

Pay of Park Keepers . . .	\$2,174 24		
Police equipment and supplies	12 75		
	————	2,186 99	
		————	5,144 37
			————
			<u>\$204,797 18</u>

WOOD ISLAND PARK.

LAND ACCOUNT.

Amount transferred from appropriation for Public Park Lands, \$82,800 00

Expenditures.

Amount paid for land in 1891 \$82,800 00

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park		
Construction	\$3,583 21	
Amount transferred from appropriation for Maintenance	9 25	
	————	\$3,592 46

EXPENDITURES FOR CONSTRUCTION.

Grading, Loam, and General Work.

Grading : labor and materials,	\$1,769 19	
Engineering expenses	150 66	
Advertising grading contract,	12 38	
Superintendence and general work	9 00	
	————	\$1,941 23

Plantations.

Labor and expenses	1,559 19	
------------------------------	----------	--

Plans and Designs.

Landscape architects and expenses	82 79	
	————	\$3,583 21

EXPENDITURES FOR MAINTENANCE.

Care of Grounds and Buildings.

Labor	\$5 75	
Signs and notices	3 50	
	————	9 25
		————
		<u>\$3,592 46</u>

CHARLESTOWN HEIGHTS.

LAND ACCOUNT.

Amount transferred from appropriation for Public Park, Charles- town	\$50,538 02
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Expenditures.

Amount paid for land in 1891	<u>\$50,538 02</u>
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CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction	<u>\$9,218 87</u>
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EXPENDITURES FOR CONSTRUCTION.

Grading, Loam, and General Work.

Grading, labor, and materials . . .	\$8,123 81	
Engineers and expenses . . .	699 96	
Fence	5 04	
General work	4 79	
	—	\$8,833 60

Plans and Designs.

Plans for Lavatory building . . .	\$300 00	
Landscape architects and expenses . .	80 47	
	—	380 47

Plantations.

Seeds	4 80	
	—	<u>\$9,218 87</u>

CHARLESTOWN PLAYGROUND.

LAND ACCOUNT.

Amount transferred from appropriation for Public Park, Charlestown	\$47,800 02	
Amount transferred from appropriation for Public Park Lands	93 00	
	—	<u>\$47,893 02</u>

Expenditures.

Amount paid for land in 1891	\$47,800 02	
Amount paid for surveying	93 00	
	—	<u>\$47,893 02</u>

CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction	\$506 80	
Amount transferred from appropriation for Main- tenance	192 50	
	—	<u>\$699 30</u>

EXPENDITURES FOR CONSTRUCTION.

Grading, Loam, and General Work.

Grading, labor, and materials	\$464 61	
General work	41 14	
Engineering expenses	1 05	
	<hr/>	\$506 80

EXPENDITURES FOR MAINTENANCE.

Park Police.

Pay of Park Keepers	192 50	
	<hr/>	<u>\$699 80</u>

PUBLIC PARKS, DORCHESTER.

LAND ACCOUNT.

Amount transferred from appropriation for Public Park Lands		\$1,215 98
		<u><u>\$1,215 98</u></u>

Expenditures.

Amount paid for surveying		<u>\$1,215 98</u>
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DEPARTMENT APPROPRIATION.

Amount transferred from appropriation for Maintenance		<u>\$7,652 34</u>
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GENERAL ACCOUNT.

Expenditures.

Salary of Secretary and Clerk	\$8,000 00	
Clerical service at office	1,800 00	
Printing annual report, etc.	940 98	
Office furniture and fixtures	488 50	
Telephone and messenger service and incidental expenses	425 82	
Surveying Muddy River lands	419 24	
Clerical service at Assessors' office	257 00	
Maps	115 00	
Advertising	96 70	
Stationery	68 92	
Coach-hire	56 00	
Plans and designs	84 18	
	<hr/>	<u>\$7,652 34</u>

APPROPRIATION FOR MAINTENANCE.

Balance unexpended Dec. 31, 1890	\$12,708 25	
Appropriation for the financial year 1891-92	60,000 00	
Amount transferred from Income Account	4,411 43	
	<u> </u>	<u>\$77,119 68</u>

Expenditures.

Paid on account of Franklin Park	\$29,130 82	
Paid on account of Parkway	17,628 65	
Paid on account of Charlesbank	12,524 08	
Paid on account of Park Department	7,652 84	
Paid on account of Marine Park	5,144 87	
Paid on account of Arnold Arboretum	4,887 67	
Paid on account of Charlestown Playground	192 50	
Paid on account of Wood Island Park	9 25	
	<u> </u>	<u>\$77,119 68</u>

INCOME.

Receipts.

Balance remaining Dec. 31, 1890	\$5,565 24	
Received from premium on loans	28,242 50	
Received from rents and sale of buildings, grass, wood	14,904 89	
	<u> </u>	<u>\$48,712 63</u>

Payments.

Premium on loans paid into Public Park Sinking Fund	\$28,242 50	
Income carried to General City Income	14,904 89	
Transferred to Park Maintenance	4,411 48	
Balance remaining Jan. 31, 1892	1,153 81	
	<u> </u>	<u>\$48,712 63</u>

PUBLIC PARK LANDS.

(Previously acquired.)

Balance unexpended Dec. 31, 1890	\$161 52	
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Expenditures.

Paid on account of Charlesbank	\$161 52	
--	----------	--

PUBLIC PARK LANDS.

Balance unexpended Dec. 31, 1890	\$500,640 81	
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Expenditures.

Paid on account of Parkway, Muddy River	\$112,882 62	
Paid on account of Wood Island Park	82,800 00	
Paid on account of Parkway, Jamaica Pond	55,269 79	
Paid on account of Parkway, Old Harbor	42,994 52	
Paid on account of Parkway, Back Bay Fens	21,374 25	
Paid on account of Public Parks in Dorchester	1,215 98	
Paid on account of Charlestown Playground	98 00	
Balance unexpended Jan. 31, 1892	184,010 15	
		<u>\$500,640 31</u>

PUBLIC PARK, CHARLESTOWN.

Public Park Loan issued Nov. 1, 1890	<u>\$200,000 00</u>
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Expenditures.

Paid on account of Charlestown Heights	\$50,538 02	
Paid on account of Charlestown Playground	47,800 02	
Balance unexpended Jan. 31, 1892	101,661 96	
		<u>\$200,000 00</u>

PUBLIC PARK CONSTRUCTION.

Balance unexpended Dec. 31, 1890	\$37,158 04	
Public Park Construction Loan, issued in 1891	500,000 00	
Public Park Loan issued in 1891	700,000 00	
		<u>\$1,237,158 04</u>

Expenditures.

Paid on account of Parkway	\$345,676 20	
Paid on account of Marine Park	199,652 81	
Paid on account of Franklin Park	189,458 61	
Paid on account of Arnold Arboretum	88,980 29	
Paid on account of Charlesbank	19,621 48	
Paid on account of Charlestown Heights	9,218 87	
Paid on account of Wood Island Park	3,588 21	
Paid on account of Charlestown Playground	506 80	
Balance unexpended Jan. 31, 1892	485,464 82	
		<u>\$1,237,158 04</u>

II.

Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Jan. 31, 1892.

PARKWAY CONSTRUCTION.

BACK BAY FENS.

Receipts.

From appropriations for Back Bay Fens	\$1,082,179 89	
From loan for Public Park Construction	727,264 47	
From appropriations for Park Department	22,868 85	
From Income Account	8,449 41	
	<hr/>	\$1,885,762 12

Expenditures.

Filling	\$548,951 20	
Excavating, grading, loam, and general work	496,828 64	
Roadways, sidewalks, gutters, and drainage	250,663 19	
Retaining-walls, curb, and fence	115,560 01	
Boylston bridge	92,011 48	
Charlesgate bridge	56,675 79	
Plantations	56,272 61	
Agassiz bridge	52,013 50	
Railroad bridge	39,995 04	
Stony Brook bridge	29,896 96	
Fen bridge	27,486 99	
Plans and designs	25,712 27	
Office and general expenses	14,114 92	
Machinery, tools, etc.	18,797 11	
Commonwealth Avenue mounds.	7,512 89	
Surveying	5,472 16	
Stony Brook channel and Gate-house.	1,976 28	
Water supply, settees, and live-stock.	821 13	
	<hr/>	\$1,885,762 12

RIVERWAY AND JAMAICAWAY.

Receipts.

From loan for Public Park Construction	\$124,916 67	
From appropriations for Muddy River Improvement	4,000 00	
	<hr/>	\$128,916 67

Expenditures.

Excavating, grading, loam, and general work	. \$122,795 87	
Surveys, plans, and designs	. . . . . 5,908 68	
Filling	. . . . . 154 87	
Gate-house	. . . . . 58 80	
	<hr/>	<u>\$128,916 67</u>

III.

*Receipts and Disbursements of the Department from the
Organization of the Board, Oct. 8, 1875, to Jan. 31,
1892.*

PUBLIC PARK LANDS, CONSTRUCTION AND MAINTENANCE.

RECEIPTS.

Public Park Loan for lands, less balances merged	. . . . . \$8,688,791 78	
Public Park Construction Loan	. . . . . 2,500,000 00	
Appropriations, less transfers, merged balances, and betterment expenses	. . . . . 1,788,917 46	
Public Park Loan	. . . . . 700,000 00	
Income appropriated to maintenance	. . . . . 66,808 78	
From Town of Brookline, for land	. . . . . 20,000 00	
From Miscellaneous Loan, and transfer from sale of city property, for land	. . . . . 16,869 02	
	<hr/>	<u>\$8,726,886 99</u>

DISBURSEMENTS.

Land.

Franklin Park	. . . . . \$1,474,296 64	
The Parkway	. . . . . 1,048,691 42	
Charlesbank	. . . . . 373,916 99	
Marine Park	. . . . . 232,972 57	
Wood Island Park	. . . . . 132,800 00	
Arnold Arboretum	. . . . . 88,982 71	
Charlestown Heights	. . . . . 50,538 02	
Charlestown Playground	. . . . . 47,893 02	
Public Parks, Dorchester	. . . . . 1,215 98	
	<hr/>	<u>\$3,446,257 35</u>
<i>Amount carried forward,</i>		<u>\$3,446,257 35</u>

*Amount brought forward,***\$3,446,257 85***Construction.*

The Parkway	\$1,964,678 79	
Franklin Park	1,087,421 89	
Marine Park	625,043 81	
Charlesbank	278,966 81	
Arnold Arboretum	158,321 50	
Wood Island Park	102,581 98	
General Account	67,205 98	
Park Nursery	29,947 07	
Charlestown Heights	9,218 87	
Charlestown Playground	506 80	
	<hr/>	4,818,892 95

Maintenance.

Franklin Park	\$104,364 85	
The Parkway	50,795 88	
Charlesbank	84,375 93	
Marine Park	22,729 54	
Arnold Arboretum	21,694 58	
Charlestown Playground	192 50	
Wood Island Park	61 88	
	<hr/>	234,214 66
Balance unexpended Jan. 31, 1892		727,022 08
		<hr/>
		\$8,726,386 99

PUBLIC PARK DEBT AND SINKING FUND.*Receipts.*

Appropriations for interest on debt	\$1,222,661 58	
Appropriations for Sinking Fund	527,110 00	
Received from betterments, less refunded	807,760 62	
Income paid into Sinking Fund	206,135 86	
Interest on bank deposits and investments	204,658 25	
Income applied to the payment of debt	94,000 00	
From Park appropriations for betterment ex- penses	9,677 62	
From Reserved Fund for repayment of better- ments	241 16	
Unexpended balances of loans for Park lands paid into Sinking Fund	180 84	
	<hr/>	\$2,572,425 43

Disbursements.

Interest on Public Park debt	\$1,222,661 58
Public Park Sinking Fund	787,951 20
Debt paid by Sinking Fund	450,000 00
Debt cancelled by revenue and betterments	99,000 00
Betterment expenses	9,677 62
Betterments held under protest	2,898 87
Betterments repaid from Reserved Fund	241 16
	<hr/>
	\$2,572,425 43

DEBT STATEMENT.

The Public Park Debt, Jan. 31, 1892, to be paid as it becomes due from the Resources of the Public Park Sinking Fund.

Public Park, Charlestown, 4% Loan, due Oct. 1, 1900	\$200,000 00
Franklin Park, 4% Loan, due Jan. 1, 1913	233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1913	50,000 00
Franklin Park, 4% Loan, due April 1, 1913	300,000 00
Charlesbank, 4% Loan, due April 1, 1913	285,000 00
Marine Park, 4% Loan, due April 1, 1913	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	119,000 00
Franklin Park, 4% Loan, due Jan. 1, 1914	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914	75,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1915	16,000 00
Marine Park, 3½% Loan, due Oct. 1, 1915	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916	20,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1916	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917	400,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1918	450,000 00
Public Park Construction, 4% Loan, due April 1, 1918	5,000 00
Public Park Construction, 4% Loan, due July 1, 1918	5,000 00
	<hr/>
<i>Amount carried forward,</i>	\$2,995,000 00

<i>Amount brought forward,</i>	\$2,995,000 00
Public Park Construction, 4% Loans, due Oct. 1, 1918	40,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1919	480,500 00
Public Park Construction, 4% Loan, due April 1, 1919	16,000 00
Public Park Construction, 4% Loan, due July 1, 1919	3,500 00
Public Park Lands, 8½% Loan, due Jan. 1, 1920 .	600,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1920	439,500 00
Public Park Construction, 4% Loan, due July 1, 1920	16,400 00
Public Park Construction, 4% Loan, due Oct. 1, 1920	44,100 00
Public Park Construction, 4% Loan, due June 1, 1921	500,000 00
Public Park, 4% Loan, due June 1, 1921 . . .	700,000 00
Public Park Construction, 8½% Loan, due Jan. 1, 1987	500,000 00
Total Debt	\$6,335,000 00
Less the means in the Sinking Fund, and in hands of City	
Treasurer for paying the same, Jan. 31, 1892 . . .	790,845 07
Debt, less means for paying	<u>\$5,544,154 93</u>

SINKING FUND STATEMENT.

Resources of the Public Park Sinking Fund, Jan. 31, 1892, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.

New Library Building, 8½% Loan, due July 1, 1899	\$150,000 00
Franklin Park, 4% Loan, due Jan. 1, 1918 . . .	100,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1918 .	60,000 00
<i>Amount carried forward,</i>	<u>\$310,000 00</u>

<i>Amount brought forward,</i>	\$810,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1913 .	50,000 00
Muddy River Improvement, 4% Loan, due April 1, 1918	19,000 00
Cochituate Water, 4% Loan, due April 1, 1917 .	25,000 00
Cochituate Water, 8% Loan, due April 1, 1917 .	25,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	23,500 00
Public Park Construction, 4% Loan, due Oct. 1, 1920	27,100 00
	<hr/>
Total investments	\$479,600 00
Cash	808,351 20
	<hr/>
Total resources	<u>\$787,951 20</u>

PARK CONSTRUCTION.

A summary of the work done on the public parks from Jan. 1, 1891, to Jan. 31, 1892, is given below, the details of which will be found in the City Engineer's report in the appendix.

The Parkway.—The stone-crusher and temporary buildings have been removed from the junction of Agassiz Road and the Fenway to the Tremont Entrance, and the grounds formerly occupied by them have been finished and prepared for planting. The plantations along the Fenway between Huntington and Tremont Entrances have been completed, the ride surfaced, and the walk along the Fenside has been subgraded and partially covered with stone and provided with concrete gutters.

The parapet walls of Agassiz Bridge have been built, the roadway and walks over the bridge resurfaced, the curb-stones reset and gutters repaved.

Tremont Entrance has been filled with gravel and a portion of the plantations covered with loam.

The excavation of the waterway at the Longwood Entrance has been completed, the slopes have been graded and covered with loam except in the immediate vicinity of the wall at Brookline Avenue. Audubon Road has been completed to Brookline Avenue. The filling and grading of the driveway and ride on the southerly side of the Longwood Entrance has been substantially completed, the work having been delayed by the construction of the Metropolitan sewer, through this part of the Fens.

Fen Bridge has been completed.

The work of extending the culvert under Brookline Avenue and building a retaining wall in connection with it was suspended for a time, as notice was received from the Board of Survey of their intention to widen Brookline Avenue on the southerly side. The new lines having been determined on, work was resumed and is now completed, excepting the rustic face of the wall, which will be built by the Park force.

Work is in progress on the building of the Stony Brook Bridge, and it will probably be completed in a few weeks.

The stone-crusher has been set up at the Tremont Entrance, and stone is being crushed for the surfacing of the roads and walks.

The regrading of the plantations in Commonwealth Avenue has been finished, and the part between Charlesgate East and West Chester Park has been planted.

At the beginning of the year work was in progress along Muddy River under four contracts for excavating the waterway and grading the upland. These contracts covered the whole territory from Audubon Road to the line of Cumberland Avenue extended, with the exception of the Downer-Street section. That part of the Parkway west of Brookline Avenue has been substantially completed as far as it can be

with the materials on the ground, while the work under the contract south of Tremont Street is very nearly done.

The buildings have been removed from the Downer-Street section, and the grading has been practically completed.

A new contract covering all of the grading remaining to be done has been made, and work under it is now in progress.

A contract has been made with the B. & A. R.R. Co. for filling the portion of the Parkway west and north of the waterway from Brookline Avenue to St. Mary's Street. Work has been begun under this contract.

Arnold Arboretum. — The work of grading the drive around the north side of Bussey Hill and across the meadow to Centre Street opposite Orchard Street, and of the branch from this drive to the Parkway near the corner of South and Morton Streets, has been nearly completed, a part of the drains built, and about 1,700 linear feet of roadway ballasted.

The drains and catch-basins have been built and the gutters paved on the drive from the main drive to Walter Street.

A brick building, 100 feet long and 40 feet wide, is being erected, near the point where the drive of the Arboretum leaves the Parkway beyond Centre Street, by Harvard College, with the consent of this Board. The lower story of this building is intended to serve as a dendrological museum to be open to the public; the upper story will be used as a library and herbarium, and will contain rooms for the administration of the Arboretum.

Franklin Park. — The surfacing of Loop Road has been completed and the walks in the vicinity nearly so.

The Ride through the Wilderness has been completed and 1,500 linear feet of stone for steps for the walks in the Wilderness have been purchased.

The walk from Ellicottdale to the top of Scarboro' Hill has been finished.

The easterly end of the Greeting and the grounds adjoining have been graded, curbstone set, the roadway covered with stone, and drains and catch-basins built. The easterly end of Glen Lane and the wall on the line of Glen Lane have been finished. A large force has been employed on the Circuit Drive around the easterly side of the Park, and most of this drive is sub-graded. A part of the drainage work has been done, about 1,600 linear feet of gutters paved, and 800 linear feet of road covered with stone.

Ellicottdale has been completed. The masonry work of the shelter and the masonry and wood work of the arbor on Schoolmaster Hill have been finished.

The main drain at the westerly end of the Greeting has been extended so as to drain the swampy ground near by.

Work is now in progress in excavating the proposed ponds south of Scarboro' Hill.

Marine Park. — The filling is still in progress, there having been deposited since Jan. 1, 1891, 311,450 cubic yards.

A bulkhead has been built on the easterly line of Q Street, north of E. First Street, for retaining the filling being done on the Park.

A temporary bridge to Castle Island is being built under contract to be finished on or before June 1.

Loam is now being furnished under contract for that portion of the Park already filled.

Wood Island Park. — The grounds prepared last season have been planted. A revision of the plan, required by the extension of the Park to include West Wood Island, and our failure to get what we thought to be a reasonable bid for the filling, delayed our work here during the last season.

Charlesbank. — The Women's Lavatory Building has been finished, and the Gymnastic Ground has been provided with apparatus.

A shelter has been erected on the Girls' Playground.

At the Men's Gymnasium thirteen electric lights have been established so that the grounds can be used after dark. The walk adjoining Charles Street has been paved with brick.

Charlestown Parks. — The grading of the grounds at Charlestown Heights was begun in August and is still in progress.

The filling of the Playground on Alford Street, with material from the Street Department, and other sources, is being done without expense to this department. The buildings formerly on the Guild estate have been removed.

PARK APPROPRIATIONS AND CONTRACTS.

The appropriation of \$2,500,000 authorized by Chapter 304 of the Acts of 1886 for the construction of the Public Parks having been expended, or engaged in contracts, at the beginning of the year 1891, except about \$100,000, the Board recommended that an application be made to the Legislature for authority to borrow a further sum of \$2,500,000 for construction.

The Board having also made complete takings for the sections of the Parkway between the Back Bay Fens and Perkins Street, at Jamaica Pond, and between Atlantic Street near Burnham's Wharf, South Boston, and the Marine Park, payments for which would require nearly, if not quite, all the special loan of \$600,000 authorized by the Legislature of 1888 for the acquisition of lands, the Board also recommended that authority be obtained to borrow \$1,000,000, for acquiring land, having especially in view the land necessary for the continuation of the Parkways.

These recommendations being approved by the Mayor and City Council, were favorably acted upon by the Legislature by Chapter 301 of the Acts of 1891, which provided for a loan of \$3,500,000 for said purposes, no greater amount than \$700,000 to be issued in any one year, and no lands to be taken exceeding in value, as assessed for the year 1890, \$1,000,000. This Act is printed in full in the appendix to this report.

The Act was accepted by the City Council, and appropriation of the \$3,500,000 was made in an order approved by the Mayor May 20, 1891, a copy of which is printed in the appendix, and the amount of \$700,000 was subsequently borrowed. This sum, together with the \$537,158.04 of the former loan of \$2,500,000, which remained to be expended in 1891, placed a total of \$1,237,158.04 at the disposal of the Board. Out of this sum of \$1,237,158.04 there has been expended the sum of \$801,693.22, leaving a balance of \$435,464.82. Contracts have been entered into for construction in the various parks upon which there remains work to be done, which will call for \$282,991.69, the details of which are as follows:

Contractor.	Place.	Nature of Work.	Date of Finishing Specified in Contract.	Amount.	Unperformed.
Perkins & White .	Marine Park .	Filling	Sept. 10, '91	\$212,000 00	\$74,680 39
Perkins & White .	" "	Loam	April 1, '92	16,680 00	12,426 00
Wm. L. Miller . .	" "	Temporary b'ge Castle Island,	June 1, '92	32,800 00	15,821 49
Boston & Albany R.R.	Back Bay Fens,	Filling . . . . .	. . . . .	61,200 00	17,729 39
S. & R. J. Lombard,	" " "	Paving-blocks,	. . . . .	4,939 00	1,126 56
Sampson & Clark .	" " "	Stony Brook Bridge . . .	Nov. 15, '91	37,142 00	9,099 66
Edward F. Brigham,	Muddy River .	Grading	June 1, '91	12,207 50	1,703 58
H. P. Nawn	" " "	"	Aug. 1, '91	83,790 00	13,025 81
Boston & Albany R.R.	" " "	Filling . . . . .	. . . . .	46,750 00	46,750 00
Boston & Albany R.R.	" " "	Loam . . . . .	. . . . .	17,500 00	17,500 00
Moulton & O'Ma- honey	" " "	Grading	Nov. 1, '92	65,100 00	62,427 77
John Sheehan . . .	" " "	Brookline-ave. Bridge . . .	July 1, '92	7,092 50	7,092 50
James J. Vernon .	Franklin Park,	Curbstones . .	Mar. 28, '92	3,057 96	3,057 96
			Totals . .	\$600,358 96	\$282,991 00

JAMAICAWAY.

Pursuant to the projected plan of including Jamaica Pond in the Park System, the Board during the year purchased two estates on the westerly border of the pond which were in the market.

The first one known as the Chickering place was acquired June 19th for \$25,000, and the taxes for 1891. It is situated at the corner of Prince and Perkins Streets and comprises 156,816 square feet of land with dwelling-houses and stable. It was valued at \$21,200 for taxation in 1891.

The other estate, known as the Frothingham place, was

acquired November 18th for \$30,000. It is situated on Perkins Street and comprises 145,000 square feet of land with dwelling-house and stable. It was valued at \$24,500 for taxation in 1891.

These properties are temporarily in charge of caretakers until the buildings are removed and they can be opened to public use.

The Board is negotiating for other estates where the owners are prepared to treat with the city on fair terms, and surveys of the lands in this vicinity which are considered desirable for park purposes have been made or are in progress, in order that a comprehensive plan for embodying them in the Park System may be projected.

So much of the land as is required to carry the Jamaica-way along the easterly side of the pond, in continuation of the Parkway from the Riverway to Franklin Park, should be acquired as soon as the plans are completed. Surveys and plans for the further continuation of the Parkway from Jamaica Pond to the Arnold Arboretum and thence to Franklin Park have been made. Negotiations for the acquisition of the lands required by purchase are in progress. They should be acquired as soon as the plans are completed. Early acquisition of all the above-mentioned lands is desirable both because they are rising in value and because an early completion of the Parkway from the Back Bay Fens to Franklin Park will do much to bring that Park and the Arboretum into general use, as well as to greatly increase the taxable value of property near to the Parkway.

PARKS FOR CHARLESTOWN.

Early in the year the Board advertised for proposals for the sale of lands to the city for park purposes in Charlestown.

Several offers of land were received, two of which were

subsequently accepted. One of these being the Guild Tannery property at Charlestown Neck and the other the Dehon estate at Charlestown Heights.

The Guild property, containing about 2 acres, was purchased, and the Tuft's Mill Pond property, containing $12\frac{1}{2}$ acres inside and $3\frac{1}{2}$ acres outside the sea walls, was taken by the Board May 8, 1891. No settlement has yet been made for the latter property.

The proposition for the sale of the Dehon estate was accepted by the Board May 22, 1891, and the lands were subsequently taken and settled for at the price named in the proposal. This estate is in three parcels, adjoining Bunker Hill, Quincy, and Medford Streets, and extends beyond the Boston & Maine Railroad into Mystic River. It contains about 4 acres of land and 6 acres of flats.

Proposed plans for the improvement of both of the locations are herewith presented.

Plans for a pavilion or shelter at Charlestown Heights have been prepared by Messrs. Walker & Kimball from preliminary plans of the landscape architects. The building is intended to be of wood, two stories in height, with a basement to contain heating-apparatus. The first story will contain the public rooms, lavatories, attendant's room, and rooms for the police, foreman, and workmen. The tool-house is to be in a one-story detached addition.

The public rooms are to be entered from the Park side through a covered court, made by the projecting second story, but open at the ends and the side towards the playground. Seats will here be provided under cover, and sand courts for infants will be conveniently placed outside. The second story is to be an open gallery or overlook, and will contain a band stand or balcony for city concerts overlooking the promenade.

PARK AT DORCHESTER LOWER MILLS.

June 19, 1891, the Board received the following petition :

To the Honorable Board of Park Commissioners, City of Boston :

We, the undersigned, residents of that portion of Boston known as Dorchester Lower Mills, respectfully petition you to take such action as you may deem wise to secure for public purposes the tract of land on Dorchester Avenue and Adams Street, adjoining the Convalescents' Home of the City Hospital. This rapidly growing manufacturing district, remote from parks, urgently needs a playground for youth, a permanent open-air space and park for sanitary reasons, all of which we believe may be secured now to the best advantage.

(Signed)

HENRY D. POPE

and 269 others.

The petition was accompanied by a letter from the Secretary of the Lower Mills Improvement Association, dated June 12, 1891, setting forth that

At a meeting of the Lower Mills Improvement Association, held on the above date, it was unanimously

Voted, That this Society heartily indorse the petition to your Honorable Board now being circulated, praying that you take action in regard to acquiring land in this section for public purposes. Said land adjoins property of the city of Boston on Dorchester Avenue, known as the Convalescents' Home, and lies to the south of the city property.

Communications in aid of the petition were also received from Alderman H. S. Carruth and James S. Green, M.D. In the former letter the Alderman says :

I inclose herewith several petitions from the citizens of the southerly end of Dorchester, especially the Lower Mills Village, and also a copy of the action of the Lower Mills Improvement Association, and a letter from Dr. James S. Green, the most prominent resident physician of the locality. The petitions, as you will observe, are very numerously

signed and represent all classes of population, and as I stated to you on the occasion of my being present at your last meeting, the demand for this open-air space is very urgent. The population of this locality is mostly composed of the employees in the large chocolate and paper mills and other manufactories, and the tendency for the last five years has been to concentrate population in this locality. Unless some action is taken at once it is very doubtful if any suitable place can again be secured.

This particular locality, which I have suggested, namely, the property of the Whitney and Badlam heirs, is not only in every way suitable, being situated in the heart of this village, but it is also in itself a most beautiful natural park with a magnificent growth of trees, none of which are of stump growth, but of first growth, filled with beautiful ledges of rocks, and adjoining property now owned by the City Hospital, and which could be utilized with this for the purposes indicated in the petitions enclosed.

I sincerely trust that your Board will take action on this matter at your meeting to-morrow, as I feel that no action that you could take would do more good or accomplish a greater amount of pleasure and improvement than the establishment of this open-air space, or small park. I do not think there will be any expensive demands for improvements of the property, nothing more than a mere cleaning up of some underbrush and admission to the grounds, and possibly a policeman or two on Sundays. Otherwise the place is in itself a beautiful park. The feeling of the bulk of the population, as expressed to me, is that they desire to have it saved, as the chances are all in favor of its being cut up into house lots within a very short time. If that is done, there is no other location which can be procured for the same price which would be in any degree so well located and naturally so beautiful.

Deeming the reasons set forth in the above petition and communications well founded, the Board caused surveys of the land therein described to be made, and on June 26th took the property named in the petition for a public park, which comprises 26 acres. Some change of the boundaries between this land and the Convalescents' Home may be found advisable.

WOOD ISLAND PARK.

As this Park, containing originally $23\frac{6}{10}$ acres of upland, including 4 acres of Parkway, and $57\frac{7}{10}$ acres of flats, would require extensive filling to make it available for park purposes, the Board opened negotiations with the East Boston Company with the purpose of adding West Wood Island and the intervening marsh to this location. The company met the overtures of the Commissioners in a liberal manner, and offered the lands at their assessed valuation, and, at this valuation, on June 26th the Board purchased 22 acres of upland and 108 acres of flats for the sum of \$82,300. Subsequently a small area of land belonging to the Maverick Land Company, and included within the proposed lines of the new location, was bought for \$500. The Park and Parkway now contain $45\frac{6}{10}$ acres of land and $165\frac{7}{10}$ acres of flats.

A new plan for laying out the enlarged Park has been prepared by the landscape architects and is herewith printed.

The paths on the $23\frac{6}{10}$ acres of upland have been graded, and the ground has been planted with trees.

We contemplate surfacing the paths and the projected playground, so that they will be ready for use before the close of the year.

SHORE ROAD — EAST BOSTON TO WINTHROP.

In a resolution of the Board of Aldermen dated Dec. 7, 1891, this Board was requested to investigate the question of constructing a boulevard in connection with the Park System from Jeffries Street to Wood Island Park. In the reply to this request, dated Dec. 30, 1891, upon the report of the City Engineer the Board stated as follows:

It is 3,000 feet from Jeffries Street to Wood Island Park. The depth of the fill we believe would be about 20 feet. A boulevard 80 feet in

width would require at least 400,000 cubic yards of filling. This would cost about \$240,000. Riprap for the slope, a sluiceway and gate, surfacing, drainage and planting, and connection with the Park-drive would add about \$150,000 to the cost.

The funds at our command are not more than enough to complete the Parks and Parkways to which the city is already committed, but if it should be thought wise to extend the Parkways we think that the proposed connection of Wood Island Park with Jeffries Street would be an attractive feature and would enhance the value of property in its vicinity, especially if the Parkway should be continued from Wood Island Park to Winthrop Point or farther.

We think it proper to add that the Commonwealth would probably require compensation for the fill and for the confinement of tide-water between the proposed Parkway and the mainland.

In connection with this project, Alderman Sullivan presented to the Board a communication from the Superintendent of the East Boston Company to him under date of Dec. 14, 1891, in which occurs the following :

Herewith you will find my plan of a shore-road or "Boulevard" beginning at the Park or Parkway, and extending along the shore across the dyke at Winthrop Junction to Belle Isle Creek, thence running along the water's edge by the Lowell and Loring estates by the Huckins property, and as much farther as the town of Winthrop desire to build. I am authorized to state that the East Boston Co. and the Boston Land Co. will give the city the right of way with as much land as is necessary to carry out the improvement.

The flooding of the flats lying inside the proposed drive by means of tide-gates until they are gradually filled and built upon would effect a sanitary improvement over the conditions at present existing in East Boston, and the question of the advisability of the plan is chiefly a matter of expense.

MARINE PARK.

The plan for the extension of the Marine Park on Castle Island, published in the last annual report of the Board,

has received the approval of the Secretary of War in the following terms :

In conformity with the provisions of the Joint Resolution of May 1, 1890, this plan and project for the Marine Park and works on Castle Island, in Boston Harbor, is approved.

The work on Castle Island to be executed under the general supervision of the United States officer in charge of said island, and the cut in the solid causeway fifty feet in width in the clear, to be faced with stone-masonry abutments, and to be spanned by a drawbridge to be manœuvred from, and to be entirely withdrawn to, the Castle Island side of the cut. Said drawbridge to be, and to remain, under the custody and control of the United States, and in all its details to meet the approval of the Secretary of War.

L. A. GRANT,
Acting Secretary of War.

WAR DEPARTMENT,
WASHINGTON, Oct. 13, 1891.

The plans for the temporary bridge to Castle Island, after being amended to provide a draw at the request of the War Department, were also approved December 12, 1891.

PROPOSED PARKWAY IN DORCHESTER.

On August 3, 1891, Hon. W. H. West, Major Turner, C. F. Baxter, and N. T. Robinson, a committee representing the Dorchester Improvement Union, came before the Board to submit plans for a proposed parkway or main thoroughfare from Franklin Park to Marine Park by way of Mt. Bowdoin, Savin Hill, and the Parkway at Old Harbor.

As this proposed avenue followed in many cases the lines of existing streets which were proposed to be included in the new way, over which existing streets the Park Commissioners could exercise no jurisdiction, and as the Board of Survey appeared to be the proper tribunal to map out and define the limits of such proposed way, the Board

recommended that the committee present its plans to the Board of Survey.

Subsequently, on November 19, at their request, the Board gave a further hearing to Messrs. W. B. Bird, W. H. West, C. F. Baxter, and others, on the question of a parkway through Dorchester, from Franklin to Marine Park, either on the lines previously submitted by them, or on some other feasible route.

The Board informed the committee that the laying out of such a way as the committee desired, however desirable it might be, was not now possible with the present appropriation, which was not more than sufficient for the extension of the parkways already determined upon, and for which the appropriation was made.

The Board, therefore, reports the proposition to the City Government for such action as may be deemed desirable in the premises, and will willingly undertake the duty of examining the territory with a view of determining whether a suitable route for a parkway to connect Franklin Park with Marine Park can be laid out.

The Board renews the recommendation made in earlier reports, that Columbia Street, and Boston Street as far as necessary, be widened to 90 feet, as a direct and ready means of communication between South Boston and Franklin Park.

FRANKLIN PARK.

In its last annual report the Board stated that investigations were in progress looking to a revision of the plan of Franklin Park to provide artificial water areas or ponds chiefly for ornamental purposes. These studies have been completed and a new plan of the Park has been prepared and is herewith published, showing the projected ponds and

streams which will add much to the beauty of the landscape.

Such other changes in the design, principally in the drives and walks, as the introduction of this feature will require, together with those made from time to time as the work of construction has progressed, and further study by the landscape architects has found to be desirable, are also shown on the map. A change in the manner of constructing Seaver Street is also indicated, providing for a future extension of the street-car service along the northerly border of the Park.

Plans have been drawn by Messrs. Hartwell & Richardson for a refectory to be erected on Refectory Hill, and by Messrs. Rotch & Tilden for the School-master Hill Cottage and the Ellicott House. These have been prepared in consultation with the landscape architects who submitted preliminary plans. The two latter are to be stone and thatch lodges of simple interior arrangements designed to provide such service and conveniences as the use of the arbor on School-master Hill for picnic parties, and the tennis courts in Ellicottdale, seems to require.

The refectory, with its vine-clad arbor, indicated on the map as the Pergola, is designed to be the largest and most important building erected on the Park. It will be of stone, partly two and partly three stories in height, with a Loggia, or roof garden, over the lower portion, in which is also the main dining-room. It will be arranged conveniently so that refreshments can be served in both the Loggia and Pergola as well as in the dining-rooms, and will have all the accessories of a large establishment of this kind.

A small shelter for the use of those waiting to take the Park carriages has been built, near the Columbia-Street entrance, from a design by Messrs. Sturgis & Cabot.

Arrangements have been entered into with Messrs. Bacon & Tarbell to furnish a sufficient and well-conditioned Park

carriage-service, at reasonable fare, which will permit "stop-overs" at all important points, and will make the circuit of the Park so far as the drives have been completed. The route and regulations for this service are as follows :

Carriages are to stand near the entrance from Blue Hill Avenue and Columbia Street, and are to carry no more passengers than their seating capacity will permit.

Carriages are to run hourly in the forenoon, and half-hourly in the afternoon, from 10. A.M. to half an hour after sunset, and vacant seats may be taken at any place on the route.

The fare for conveyance over the prescribed route is not to exceed twenty-five cents.

The fare from Scarboro' Hill Concourse to the Park entrance, or for any less distance on the return trip, shall not exceed ten cents.

Passengers desiring to be put down at the Overlook, School-master Hill, the Wilderness, Ellicottdale, or Scarboro' Hill, are entitled to be taken up to complete the route by any carriage having vacant seats, without the payment of additional fare.

Carriages are to start from the East Circle of the Greeting, pass by the Circuit Road to the Valley Gate, pass by the Overlook and make the circuit of the Playstead; return to the Valley Gate, pass by the Circuit Road to the east entrance of the Loop Roads, pass by the Loop Roads through the Wilderness, back to the Circuit Road; pass by the Circuit Road to the Scarboro' Hill Road, pass to the Concourse on the summit of Scarboro' Hill. Return by the same route, omitting the Loop Roads and the circuit of the Playstead.

MASS MEETINGS IN THE PARKS.

February 13, 1891. Application was made by a committee of labor organizations for the use of such portion of Franklin Park, for a public eight-hour demonstration on May 1, as the Board might see fit to assign for such use on that day.

To this request the Board replied that it saw no reason to depart from the position heretofore taken by the Board on the question of allowing mass meetings in the parks.

This had reference to the refusal of the Board to grant such requests, for reasons set forth in a reply to the Evangelical Alliance and the Central Labor Union, May 31, 1889, as follows :

Agreeable to your wish, the Park Commissioners herewith give you the conclusion arrived at after the hearing on Monday afternoon. As stated to you then, the Commissioners desired the use of the parks to be for the greatest benefit of the greatest number of people—parks to which all the people could resort, and where they could enjoy the largest liberty without any interference, molestation, or annoyance of any kind ; where men, women, and children would be safe from the interference of others ; where there should be no crowds or gatherings of people—for you know that throngs of men, excited by discussion or debate, are often alarming to the timid. This freedom from all these excitements and other annoyances was the great object of the rule in question. It seemed a necessary rule to secure to the people the true and best object of the parks. The parks are provided by the money of all the people, and should be for the benefit of all the people ; giving no right to any class or any organization to monopolize any portions of them, so as to deprive any of the free use thereof. If the Commissioners should accede to your request, all this would be changed. One of you ask the right to discuss great and exciting labor questions, which you claim peculiarly interest you, and seek the privilege of gathering together, to erect stands and create demonstrations, for the purpose of propagating and giving instructions in the principles you represent. The other, The Evangelical Alliance, claim that there are large numbers of people whom they desire to reach with their teachings, who will not come to them, and whom they cannot reach without following them to the parks, there to prevail upon them to listen to their teachings.

It seems to the Commissioners that the public parks should secure all who visit them from such invasions ; that visitors should receive what they are led to seek—peace and quiet ; to them the parks should be an asylum. It will, of course, be understood by every intelligent person that, in making these remarks, and in insisting that the parks should be kept actually free, as heretofore described, the Commissioners do not intend to disparage discussions on any of the political, economic, or labor questions of the day. They look upon such discussions as calculated for the instruction of the people, and were much interested in the remarks

of those who appeared before them ; nor can the Commissioners be supposed to entertain other than the highest appreciation of the Christian teachings of the churches represented by the Evangelical Alliance ; and yet they believe the public parks could not be used for these purposes without detriment to the great objects and purposes for which they were established. So far as the Commissioners can learn there is no considerable rural park in this country where such meetings are permitted to be held.

The Commissioners, while again expressing their regrets that they cannot have the pleasure of yielding to the wishes of any of their fellow-citizens, see no reason, after reconsidering the question in the light of your various arguments, to change their conclusion as expressed in their former communications ; and are of the opinion that the preservation of the parks for the greatest number and the greatest freedom in their use, are best subserved by the continuance of the ordinance in question, and cannot accede to your requests.

Subsequently, on the 4th of July, Henry Abrahams, against the warning of the Park police that it was in violation of the ordinances, addressed a group of people in Franklin Park for the alleged purpose of testing their rights. He was subsequently brought before the Municipal Court in West Roxbury, and, after a hearing, was fined for a violation of the Ordinances of the Park Department.

The defendant subsequently carried the case to the Supreme Court, and the following opinion of the full bench was rendered :

We see nothing in this case to call for any lengthy discussion. The Park Commissioners had, by the Stat. of 1875, Chap. 185, Sect. 8, power "to govern and regulate" any of the parks which they might lay out under the statute, "to make rules for the use and government thereof and for breaches of such rules to affix penalties, not exceeding twenty dollars for one offence, to be imposed by any Court of competent jurisdiction." The rules which the defendant violated are similar in form to the city ordinance which was before the court in *Commonwealth v. Davis*, 140 Mass., 485, and which was held to be reasonable and valid. Of that ordinance Chief-Justice Morton said: "Its

purpose is to preserve the public peace, and to protect the public grounds from injury, and it is calculated to effect these ends, without violating the just rights of any citizen." The same language is applicable to the rules before us. See also *Commonwealth v. Plaisted*, 148 Mass., 375; *Quincy v. Kennard*, 151 Mass., 563.

We see nothing in these rules inconsistent with Art. XIX. of the Bill of Rights of this Commonwealth which declares that "The people have a right, in an orderly and peaceable manner, to assemble to consult upon the common good; give instructions to their representatives, and to request of the legislative body, by the way of addresses, petitions, or remonstrances, redress of the wrongs done them, and of the grievances they suffer." The defendant admits that the people would not have the right to assemble, for the purposes specified, in the public streets, and might not have such right in the Public Garden or on the Common, because such an assembly would or might be inconsistent with the public uses for which these places are held. The same reasons apply to any particular park. The parks of Boston are designed for the use of the public generally, and whether the use of any park or of a part of any park can be temporarily set aside for the use of any portion of the public is for the Park Commissioners to decide in the exercise of a wise discretion.

The defendant further contends that the rules in question are in conflict with that provision of the Fourteenth Amendment of the Constitution of the United States, which provides that "No State shall deny to any person within its jurisdiction the equal protection of the laws." This amendment does not impair the police powers of a State. *Barbier v. Connolly*, 113 U. S., 27. And we fail to see anything in the rules, or in the statute authorizing them, which falls within the amendment. The case of *Yick Wo v. Hopkins*, 118 U. S., 356, on which the defendant chiefly relies, was one of race discrimination.

Exceptions overruled.

On September 18, 1891, applications were received from Colonel Strachan and Major Follett for the use of a part of Franklin Park for the annual drill of the Ninth Infantry and the parade of Battery A. A hearing was given to the officers of the Ninth Regiment, at which they stated that they desired

to have a sham fight and parade on the Park. On this application the Board

Voted, That in the judgment of the Board the fighting of a sham battle or military manœuvres and exercises of this character are incompatible with the proper purposes of Franklin Park, and it is therefore deemed inexpedient to grant the petition.

And on the application of Major Follett, it was

Voted, That the Board regrets that it deems it inconsistent with public interests to grant the petition of Battery A to parade on Franklin Park, October 12.

ATHLETIC AND PARADE GROUNDS.

In its last two annual reports, under the headings "Athletic Grounds" and "Public Meeting Grounds," the Board suggested the location of a large common on the South Bay which would serve for games of ball and other athletic sports, large open-air meetings, and for training or parade purposes for the militia.

The Board also reported a communication from the owners of a large part of the flats in the bay, giving to the city a six months' option to purchase about 20 acres for this purpose for the sum of ten cents per square foot, or \$98,800. Subsequently, at the request of the Common Council, received through His Honor the Mayor, the Board reported that the cost of filling said area and adjoining streets would be \$310,000; that the cost of constructing a road to connect the same with Swett and Boston streets, the land for which would be given, would amount to \$68,000 more. This, with 10 per cent. added to each for contingent expenses, would make a total of \$415,800. By using city ashes for all but the streets the area could be filled for about \$175,000. No further action was taken by the City Council in the matter at that time. Later in the season the Board considered the

availability of the Peat meadow, lying east of Blue Hill Avenue and south of Talbot Avenue, for the purposes of a skating-pond, training-field, and playground. This territory, which is mainly wet ground and of small value for building purposes, had previously been brought to the notice of the Board as well adapted to being made into a lake.

The latter project was not feasible, owing to the small area of water-shed and the great evaporation which would take place over so large an area, but the use of the land for a playground in summer and a skating-pond of shallow flowage in winter was found to be possible with a moderate expense for under-draining and surfacing.

The Board caused surveys to be made of the Peat meadow and adjoining upland, and subsequently, on October 7, called the attention of the Mayor to the availability of the location for the purposes abovementioned, as follows :

For a large public ground for mass meetings, parades, sports, and like uses, there is a tract of about 70 acres in Ward 24, bounded on three sides by Talbot Avenue, Blue Hill Avenue, and the Roman Catholic cemetery. This tract is composed of about 40 acres of meadow and 30 acres of upland. It is believed that properly drained and treated the meadow can be made suitable for all uses where level ground is needed, and that it can also be flooded in winter to make a skating-pond. The upland would be useful during the preparation of the meadow, and would always be a desirable ground from which to view sports and parades on the meadow, and for some of the manœuvres of troops, the whole being sufficient for a brigade's evolutions.

The ground is near Franklin Park, the street railway in Blue Hill Avenue, and the N. Y. & N. E. R.R., and it is a tract two-thirds of which is at present undesirable for building purposes.

The 40 acres of meadow are assessed for \$15,000, and the 30 acres of upland for \$23,800. The market value can hardly be more than double the assessed value. The expense of draining and preparing these grounds need not exceed \$150,000. A temporary preparation of the grounds for immediate use can be made by under-draining the meadow and by diking and ditching two of its sides at a cost of \$30,000.

Public reference to this proposition was made in the press, and interviews with the officers of military organizations were published, favoring in the main the securing of the grounds for a muster-field.

A committee has been appointed by the present City Council to consider the expediency of securing the ground in the South Bay above-mentioned for a public meeting ground.

CHARLESBANK GYMNASIUMS.

Inquiries having been received from many quarters in regard to the laying out of the open-air gymnasiums at Charlesbank, the facts relative to the establishment of these grounds are given below in detail.

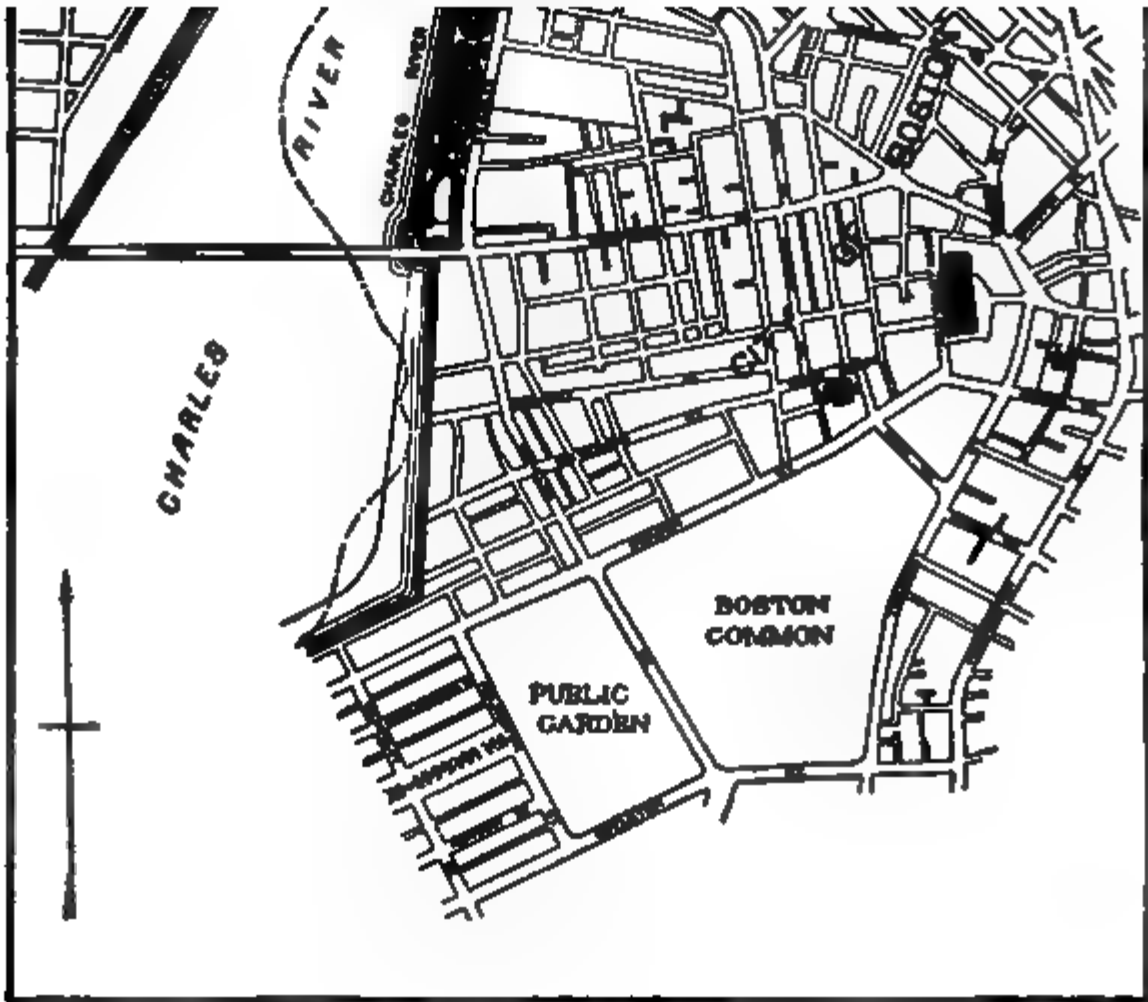
Plans for improving the city shore of the Charles River were first outlined in the second report of this Board in 1876, in connection with the general plan for public parks.

In 1881 authority was obtained from the Legislature to construct that part of the proposed Embankment lying between Craigie's and West Boston bridges and shown in accompanying key map.

Subsequently the City Government made appropriations therefor, and thereupon the sea-wall and filling were completed in 1886, and a plan for the laying out of the grounds was made by the landscape architect, Mr. Frederick Law Olmsted.

In his report (published in the annual report of this Board for 1886) Mr. Olmsted described the leading features of the plan as follows :

First. A level promenade nearly half a mile in length, adjoining and overlooking deep water. This promenade is to have an unbroken width of twenty-five feet. It is to be bordered on the side opposite the river by a row of trees, back of which are to be shaded seats, the arrange-



ments being spacious, simple, and convenient for keeping clean and in good order.

Second. On the side of the promenade toward the city the larger part of the ground is to be raised above the general level with slopes of a

natural aspect, and is to be planted in the character of a natural grove, screening the air coming from that direction, shutting the buildings out of view, giving a certain degree of sylvan seclusion to the promenade, and smothering the roar of the streets to those upon it.

Third. A space 370 by 150 feet in extent is to be enclosed and prepared especially as an exercise-ground for women and children, no others being admitted. It is to be screened about with shrubbery, and is to be adapted only to simple forms of recreation in which many can be engaged at a time quietly, without compelling care-taking of excessive cost.

Fourth. A space 500 by 150 feet in extent is to be fitted with simple gymnastic apparatus, and subject to use for more robust forms of exercise; but not games or feats likely to attract crowds in which it would be difficult to maintain order, and which would interfere with the comfort of women and children on the promenade.

Fifth. Two landings for boats are provided for, and it is intended that boats for hire should be offered at them.

Sixth. Two houses to contain water-closets, tool-rooms, and offices of administration are proposed, one at the entrance of the women's exercise-ground and near the southern boat-landing, the other near the gymnastic ground and the northern landing.

Seventh. A row of lights at the edge of the embankment, and another along the street, will satisfactorily light the entire ground. No gas-pipes are to be laid in the planted parts.

The Embankment is about 2,200 feet long by 200 feet wide and contains about 10 acres.

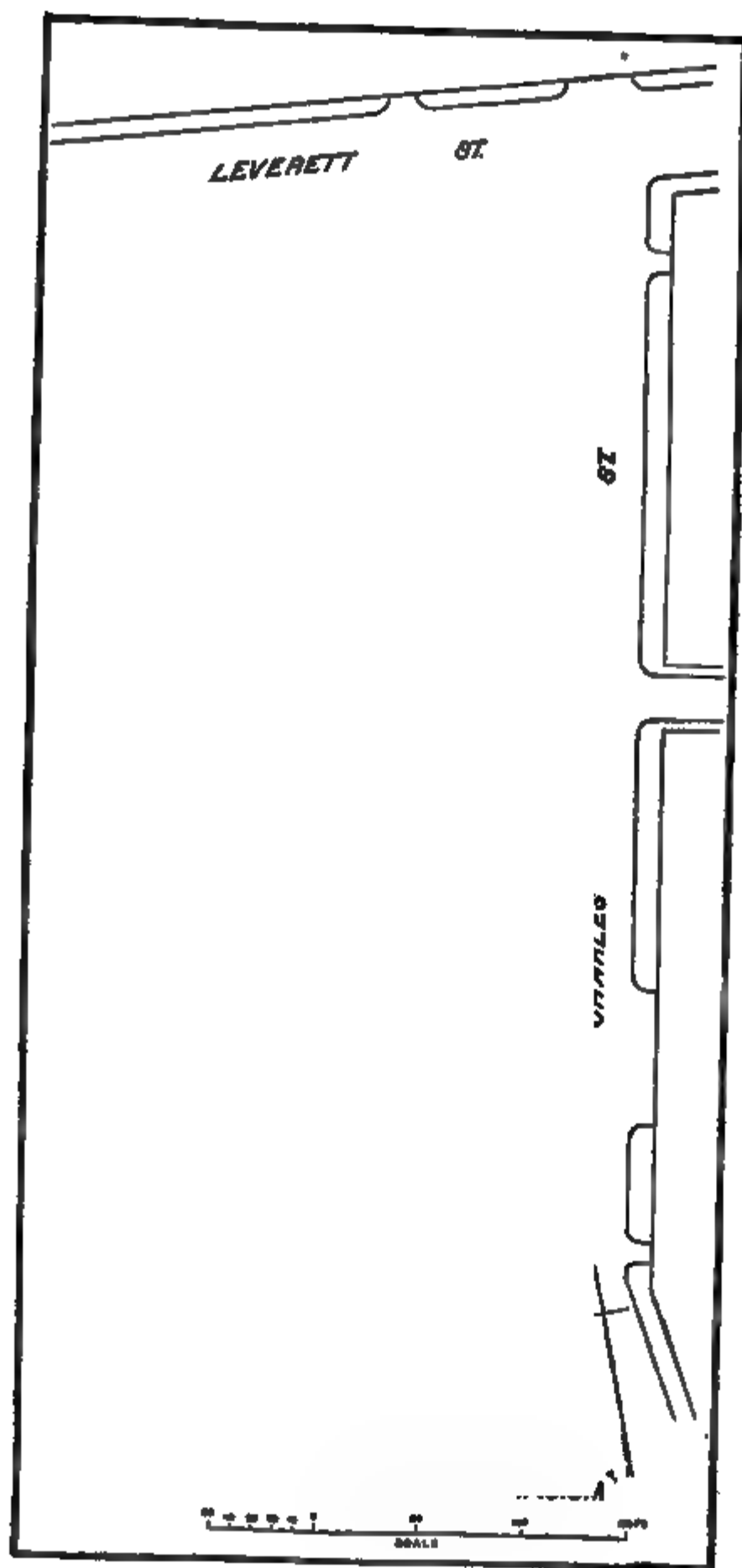
The men's gymnasium is situated at its northerly end and is surrounded by an iron fence. The Lavatory building is 20 feet by 50 feet on the ground, and is 2 stories in height. The lower story contains offices for the police and foreman, storerooms for tools, etc., and a room for the use of the boat-keeper. The upper story is divided into two rooms, one of which contains water-closets, urinals, and lavatories, and the other is the entrance to the gymnastic ground, and is provided with boxes for clothing.

The latter room is connected with the gymnastic ground by a bridge over the walk and running-track, with stairs from its outer end leading to the ground, to avoid interfering with the use of the track, and the only entrance to and exit from the gymnastic ground is through turnstiles at the entrance to the bridge.

The gymnastic ground is provided with apparatus consisting of two sheds, with 12 sets of chest-weights in each, including 6 high and low pulleys, 2 giant-strides, 8 sets of horizontal bars, 8 sets of parallel bars, 6 jumping-boxes, 7 boxes for quoit-pitching and shot-throwing (arranged as shown in the accompanying cut), 2 sets of jumping standards and ropes, 2 sets of sand-bags and attachments, 4 vaulting-poles, 3 shots, 2 heavy weights, 24 quoits, 20 pairs of dumb-bells, 10 sets of hurdles, and 2 large frames, each 160 feet long, to which are attached the following apparatus :

4 balance-swings.	1 perpendicular ladder.
8 breast-bars.	1 inclined ladder.
4 single swings.	4 pairs of flying-rings.
2 double swings.	4 single trapezes.
5 swinging-ropes.	1 climbing-pole.
1 rope ladder,	2 inclined poles.
1 iron Jacob's ladder.	2 perpendicular poles.

Around the outside of the ground there is a running and bicycle track 15 feet wide and one-fifth of a mile long. The apparatus was designed and furnished by D. A. Sargent, M.D., Professor of Physical Culture, of Harvard University. There are two drinking-fountains within the enclosure. The men's gymnastic ground was opened to the public on August 27, 1889, in charge of Superintendent John Graham, and under the following regulations :



1. The Superintendent is responsible for the maintenance of order and decorum, and for the exercise of discretion and civility in all use to be made of the gymnasium. His authority corresponds with his responsibility. No one is to enter the gymnasium when forbidden by him; no one to remain in it when desired by him to leave. Report may be made to the Park Commissioners whenever the Superintendent is thought to have used his authority unjustly, but his authority is not to be resisted or impugned by visitors on the ground.

2. No one is to occupy the gymnasium except while making use of some of its apparatus for exercise or while waiting opportunity to do so, or for a reasonable breathing-time between exercises.

3. No part of the person usually clothed within doors, is to be exposed while in the gymnasium.

4. No person is to use any piece of the apparatus to the exclusion of another person beyond a reasonable time. In cases of dispute the Superintendent will decide what is a reasonable time.

5. No person is to engage in dangerous exercises. If the Superintendent judges any form of exercise by any person to be dangerous, it is to be so considered and refrained from by that person.

6. No part of the apparatus is to be put to other than its proper use, or to be used with excessive violence.

7. In any use of the track the right side of the person is to be kept toward the fence.

8. Shots, hammers, quoits, and poles, after any use of them, are to be placed by their users in the boxes and racks provided for them.

9. Persons not engaged in putting the shot or hammer are to avoid the ground assigned to those who are so engaged.

10. Wheelmen will have the right to use the track during the forenoon of each day; runners during the afternoon. But, with permission of the Superintendent, runners can use it when it is not wanted for wheeling in the forenoon, and wheelmen can use it when it is not wanted by runners in the afternoon.

The regulations above recited for the use of the Charlesbank Gymnasium are hereby made ordinances of the Department of Parks. All offending against them will be subject to a fine not exceeding twenty dollars, and will forfeit their right to the use of the ground for the season.

The gymnasium is kept open from April 1 to about the middle of December.

About 100,000 entries for use of the apparatus or grounds were made during the season of 1890, or an average of 447 each day, not including Sundays, upon which day the gymnasium is closed.

In May, 1891, the gymnasium was lighted by a number of arc electric lights, and was kept open until 9.30 P.M. The number of visitors entering the men's gymnasium in 1891 was 169,219; the largest registered number passing the turnstile into the grounds for three single days being, May 3, 1,649; July 30, 1,480, and July 31, 1,572.

Besides the Superintendent there is a lodge-keeper, and the Park police can be called upon in cases of necessity. The behavior of those using the grounds has been excellent. No arrests for violating the Gymnasium Regulations or the Park Ordinances were made in 1891. This gymnasium has, we think, proved its usefulness, and under proper guidance it is easily managed.

The women's gymnasium and the playground for children are at the southerly end of the Embankment and are surrounded by shrubbery, which is intended to screen them from the public view. The gymnasium is temporarily enclosed by a high board fence, and dressing booths are placed along the fence on one side of the grounds.

Entrance to the grounds is only through the upper part of the women's lavatory building and within view of the attendant. This part of the building is devoted chiefly to those using the gymnasium and playground. The lower story is used for a tool-room and quarters for the Park foreman and the boat-keeper. Adjoining, and in the rear of the building, are the sand courts for the younger children. The gymnastic apparatus, excepting the iron frame, was



DIAGRAM
SHOWING WOMEN'S GYMNASIUM

furnished and erected by Prof. D. A. Sargent, and consists of the following

- 2 balance-swings and frames.
- 2 seesaws, with side-rails and guards.
- 2 seesaws, plain.
- 2 single swings.
- 2 pole ladders.
- 2 perpendicular ladders.
- 4 hanging-ropes, fastened at the bottom.
- 1 long inclined rope and attachments.
- 4 long inclined poles.
- 4 short inclined poles.
- 4 perpendicular ladders combined.
- 5 serpentine ladders united, with guard-rails.
- 2 perpendicular climbing-poles.
- 12 swinging-ropes.
- 1 horizontal rope ladder.
- 2 sets horizontal bars and stanchions, with height adjustable.
- 1 set of movable parallel bars.
- 1 set of high parallel bars.
- 1 set of vaulting-bars.
- 11 travelling rings and attachments.
- 2 single trapezes, with height made adjustable by pulley and chain attachments.
- 2 sets of flying-rings, with height made adjustable by pulley and chain attachments.
- 12 pairs of chest-weights to run in wooden boxes.
- 1 set of jumping standards and ropes.
- 2 giant-strides, ropes, handles, and fixtures.
- 24 ring quoits and pins.
- 12 jumping-ropes.

- 12 hoops.
- 25 long wands.
- 98 short wands.
- 98 pairs of wooden dumb-bells.
- 98 pairs of wooden Indian clubs.

The chest-weights are arranged under a projecting part of the building adjoining the sand courts.

The accompanying sketches show the general arrangement of the apparatus.

The problem of the proper supervision, management, and care of this gymnasium was satisfactorily settled by our acceptance of the proposition of the Massachusetts Emergency and Hygiene Association, which is under the management of well-known ladies, to take the entire charge and

oversight of it without expense to the city, beyond the furnishing of supplies, cleaning the rooms, and taking care of the grounds and apparatus.

The following regulations for the use and government of the gymnasium and playground were adopted :

1. The Women's Gymnasium and the Children's Playground shall be under the immediate charge and direction of a Superintendent, a Matron, and other assistants, to be appointed by the Park Commissioners upon the nomination of the Massachusetts Emergency and Hygiene Association, which shall have general management of the same.

2. The Superintendent and the Matron shall hold police warrants empowering them to make arrests and to enforce the Park Rules and Regulations.

3. The Superintendent is responsible for the maintenance of order and decorum, and for the exercise of discretion and civility in all use to be made of the gymnasium. Her authority corresponds with her responsibility. No one is to enter the gymnasium when forbidden by her; no one to remain in it when desired by her to leave it. Report may be made to the Park Commissioners whenever the Superintendent is thought to have used her authority unjustly, but her authority is not to be resisted or impugned by visitors on the ground.

4. All persons using the Women's Gymnasium and the Children's Playground do so at their own risk. Neither the Park Commissioners, nor the Massachusetts Emergency and Hygiene Association, nor any member thereof, shall be liable for any personal property lost or stolen on the premises, nor for any injury to any person incurred in the use of the Women's Gymnasium and the Children's Playground.

5. The Women's Gymnasium and the Children's Playground shall be open from 8 A.M. till a half-hour after sunset, daily, except that the use of the gymnastic apparatus shall not be permitted on Sundays, or when the weather is unsuitable.

6. The use of the gymnasium is limited to women and to girls over nine years of age.

7. No one is to occupy the gymnasium except while making use of some of its apparatus for exercise, or while waiting opportunity to do so, or for a reasonable breathing-time between exercises.

8. No person is to use the apparatus unless provided with a suitable dress for gymnastic exercise.

9. No person is to use any piece of the apparatus to the exclusion of another person beyond a reasonable time. In cases of dispute, the Superintendent will decide what is a reasonable time.

10. No person is to engage in dangerous exercises. If the Superintendent judges any form of exercise by any person to be dangerous, it is to be so considered and refrained from by that person.

11. No part of the apparatus is to be put to other than its proper use, or to be used with excessive violence.

12. In any use of the track, the right side of the person is to be kept towards the fence.

13. Skipping-ropes, quoits, poles, and all other detached apparatus, after any use of them, are to be placed by their users in the boxes and racks provided for them.

The regulations above recited for the use of the Charlesbank Gymnasium for Women and Playground for Children are hereby made ordinances of the Department of Parks. All persons offending against them will be subject to a fine not exceeding twenty dollars, and will forfeit their right to the use of the ground for the season.

Upon the association offering to employ a superintendent, who should be the teacher of the gymnastic apparatus; a matron, who should be a Kindergartner; a house woman and an errand girl; and upon the nomination of its committee having the matter in charge, we appointed Miss Elizabeth McMartin, a former pupil of Dr. Sargent's, Superintendent; Miss Rosa Doyle, formerly Miss Garland's assistant for six years in her Kindergarten, Matron; Miss Maria Dall, House Woman; and Mary Butler, errand girl. The Superintendent

and Matron were also appointed Park police officers, in connection with their respective duties, without pay.

The attendance at this gymnasium is given in the report of the committee in charge which follows.

(The largest registered number for three single days was July 6, 2,477; July 9, 2,368; July 11, 2,389.)

To the Park Commissioners:

GENTLEMEN: It is with great pleasure that we submit to you our report of the Women's Gymnasium and Children's Playground at Charlesbank, which has been open from June 1 to November 1, according to our agreement with you.

The registered number of those who have been there is 144,539. This total includes Sundays, the attendance on that day alone being

13,010. In June there were present 33,876, July 46,697, August 37,965, September 18,096, October 7,985. During August many were away on summer vacations. On Sundays the gymnasium proper was closed.

Instruction has been given to 60 classes of children, averaging 26 in each class, and to 101 women singly or in twos and threes. Most of the children were never in a gymnasium before, but many are now able to climb ropes, go up and down the travelling-rings several times in succession and use most of the apparatus with comparative ease. One young woman cleared 4 feet 1 inch on the running high jump, and another can run $\frac{1}{4}$ of a mile in 37 seconds.

Besides the care that has been given to gymnastic exercises, equal attention has been bestowed upon the small children, who dug day after day in the sand-heaps, and upon the older ones, who were taught to use Kindergarten materials, and were happy in moulding clay figures and in sewing outline figures on cards.

Many gifts of books, papers, and Kindergarten material have been received. On Sundays the children have sat on the grass and listened to endless stories.

We have been very fortunate in our superintendents, especially in Miss McMartin, who is an exceptionally fine manager. We have not had a single instance of serious trouble.

In June and October, Mrs. Wells was in charge. In July, September, and August, Miss Tower. Miss Huntington and Mrs. Dr. Williams and Mrs. Freeman have also given much aid.

The committee feel that the work has been an unqualified success, and certainly it has been the happiest work we ever did. The influence on the children has been for steady good. Mothers have brought their sewing, while their children played beside them on the grass.

We are most grateful to the Park Commissioners for their ready consent to our plans, and for the wisdom and liberality they have steadily shown us.

If it is your wish that we should assume the management of the Women's Division of Charlesbank next summer as in the season just closed, will you inform us at your earliest convenience?

Yours respectfully,

For the Committee,

KATE GANNETT WELLS.

ELLEN MAY TOWER.

NOVEMBER 1, 1891.

423 Boylston street.

The expenditures for construction on account of the gymnasiums were as follows :

MEN'S GYMNASIUM.

Cost of building and furnishing	\$9,894 63
Gymnasium grounds, fence, and electric poles	4,263 61
Gymnastic apparatus, supporting-frames, etc.	1,934 42
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	\$16,092 66
	<hr/>

WOMEN'S GYMNASIUM.

Cost of building and furnishing	\$8,335 94
Gymnastic apparatus, frames, etc.	2,067 16
Gymnasium grounds, fence, etc.	1,715 76
Shelter for children's Playground	860 00
	<hr/>
	\$12,978 86
	<hr/>

The expenditures for maintenance on account of the Men's Gymnasium for 1891 were	\$4,579 87
On account of Women's Gymnasium for 1891 were	457 28
	<hr/>

EXTENSION OF CHARLESBANK.

In previous reports the Board has pointed out the wisdom of securing the water-front of the Charles River basin for an ornamental embankment similar to that of Charlesbank.

At the suggestion of the Mayor, in his inaugural address of 1891, a petition was made to the Legislature for the appointment of a commission to consider the subject of the

Charles River basin in relation, among other things, to the laying out of a series of parks and boulevards along its banks, which resulted in the passage of Chap. 390 of the Acts of 1891, providing for the appointment of the Charles River Improvement Commission.

Also, upon petition of the City Government, the Legislature passed "An Act to authorize the City of Boston to construct a sea-wall and extend the Charles River Embankment, being Chap. 344 of the Acts of 1891." Copies of these acts will be found in the Appendix.

No action by this Board has been taken in the matter pending the report of the Commission to the General Court.

In the Appendix will be found the report of the City Engineer and the Legislative acts and City Council orders relating to public parks.

Respectfully submitted,

THOMAS L. LIVERMORE,
FRANCIS A. WALKER,
PAUL H. KENDRICKEN,

Commissioners.

BOSTON, Jan. 31, 1892.

APPENDIX.

APPENDIX.

CITY ENGINEER'S REPORT.

ENGINEERING DEPARTMENT,
50 CITY HALL, BOSTON, Jan. 31, 1892.

THOMAS L. LIVERMORE, Esq., *Chairman Board of Park Commissioners:*

SIR: I herewith submit the following report of the work done and of the matters of interest in connection with the work placed under my direction by your Board, the work being continued under the immediate charge of Assistant Engineer, E. W. Howe.

THE PARKWAY. — BACK BAY FENS.

Excavation of Waterway. — At the beginning of the year there remained a small portion of the waterway in Longwood entrance which had not been excavated. This was done early in the season, and this part of the work is now entirely completed. The dredging-plant has been sold to the Water Department.

Roadways and Walks. — Audubon road has been finished to Brookline avenue, and was opened to travel on January 3, 1892.

The roadway and walks on and near Agassiz bridge have been resurfaced, the curbstones reset, and the gutters repaved. This was made necessary by the settlement of the filling in that vicinity.

The Fenway between Huntington and Tremont entrances has been graded, except a small part occupied by piles of loam. The ride on this section has been nearly all surfaced, and the walk next

the water has been graded, its gutters built, and a portion of it covered with crushed stone. On March 20, 1891, contracts were made with the Cape Ann Granite Co. for furnishing 2,838 lineal feet of curbstone at \$1.49 per lineal foot, and with S. & R. J. Lombard for furnishing 110,000 paving-blocks, at \$44.90 per thousand. Both of these contracts have been completed.

The stone-crusher has been run continuously since September 2, and a large amount of stone is now on hand for use on the roads and walks during the coming season. The stone for crushing has been purchased as needed, from different parties, at prices varying from 75 to 90 cents per ton.

Filling. — At the Tremont and Longwood entrances all the filling required has been done under a contract with the Boston & Albany R.R. Co., dated September 16, 1890. The work was completed on February 4, 1892, and the total amount of filling deposited was 161,099 cubic yards, at 51 cents per cubic yard.

Agassiz Bridge. — The parapet walls of this bridge have been built, thus completing this structure.

Fen Bridge. — On November 24, 1890, a contract was made with Mr. William H. Ward, of Lowell, for building this bridge, with the exception of the face walls above the water level. He began work February 20, 1891, and finished it on September 29. The face walls were built by masons in the employ of the Park Department. The entire work was completed on November 17.

This is a masonry arch bridge of 15 feet span and a width of 96 feet. The foundation is of spruce piles capped with 10 × 10 inch spruce caps, which are covered with 4-inch spruce plank, the surface of the plank being at grade —0.5. The abutments are of granite, 12 feet 6 inches high; the arch is of brick, except at the ends, 20 inches thick, with a rise of 4 feet; the ends of the arches, the wing walls above grade 7.5, and the parapet are all of rustic masonry composed of Roxbury stone, all except the voussoirs laid dry, with the spaces between the stones filled with loam. The parapet is of quarried stones very roughly dressed, while the stones below the parapet are field boulders laid without any cutting. The cost of the whole structure was \$27,669.34.

Stony-brook Bridge. — On June 23, 1891, a contract was made with Sampson, Clark & Co., of Boston, for building the superstructure of this bridge. Work was begun on July 1, and it is nearly completed. The bridge spans the waterway leading from the outlet of the new channel of Stony brook and supports the main drive and ride of the Fenway. It consists of five arches of 10-feet span each, three over the waterway and two over foot-paths on either side of the waterway. The bridge is 85 feet wide between the parapets. The arches are supported by piers 2 feet square except at the ends of the main piers, where they are 2 feet \times 3 feet 6 inches. Below grade 9.5 the piers are supported by a continuous wall 2 feet thick. At the southerly side of the bridge there is at each end a flight of steps leading from the walks next the drive-ways from Huntington avenue to the walks passing under the bridge, which latter connect with the walks along the borders of the main waterway; by this means a passage is furnished to people on foot to all parts of the Fens without crossing the drive or ride at grade. In connection with these passageways, recesses for seats are built in the abutments of the bridge. On the northerly end of the bridge there is to be an iron foot-bridge, just above the level of the water, to connect the two walks. The face work of the masonry is of speckled brick, with trimmings of Milford granite. The barrel vaults underneath the bridge are lined with glazed brick of different colors, laid in patterns. On each staircase there is a drinking-fountain, and the walls are piped for lighting the drive, and also the walks under the bridge. The foundations of the bridge were built in 1887 by the Sewer Department, as a part of the new channel of Stony brook.

The work was done under the direction of this department, from designs furnished by Messrs. F. L. Olmsted & Co., and Walker & Kimball, architects.

Culvert and Retaining-wall at Brookline Avenue. — The culvert under Brookline avenue, connecting Muddy river with the waterway in the Fens, has been extended, and the foundations for a retaining-wall at its end have been built. The culvert is elliptical in section, 9 feet high and 7 feet wide, with side walls of concrete

lined with brick and a brick arch 12 inches thick. It is on a pile and timber platform. There is a rectangular manhole at the end, with grooves for stop-plank. The retaining-wall at the end of the culvert is semicircular in plan, and is built of concrete, resting upon a pile foundation to grade 7; above grade 7 the wall is to be of boulder work of the same character as the face walls of the Fen bridge. This boulder work was not included in the contract, and has not yet been built. The contractor for this work was Mr. William H. Ward, of Lowell. His contract was dated June 23, 1891; work was begun on July 1 and finished on January 7, 1892. The cost of the work covered by the contract was \$8,042.

Grading of Slopes, Loaming, and Planting. — The slopes between the ride and the water on that part of the Fens between Huntington and Tremont entrances have been graded and covered with loam, except a small portion near Stony-brook bridge. The slopes on the Longwood entrance and on a part of the Tremont entrance have been finished in the same manner.

Miscellaneous. — Fifty additional settees have been purchased, and placed along the walks. The regrading of the plantations on Commonwealth avenue, between West Chester park and Beacon street, has been completed, and the section between West Chester park and Charlesgate east has been planted.

The following table, giving the principal items of work completed, has been corrected to date.

					Per cent. of whole.
Channel excavated	.	.	.	1,227,000 sq. ft.	100
Shore completed	.	.	.	26,700 lin. ft.	100
Marsh completed	.	.	.	833,000 sq. ft.	100
Driveway completed	.	.	.	60,000 sq. yds.	68
Walks completed	.	.	.	24,000 sq. yds.	46
Ride completed	.	.	.	8,000 sq. yds.	60
Curbstone set	.	.	.	25,946 lin. ft.	75
Gutters paved	.	.	.	13,300 sq. yds.	67
Area covered with loam	.	.	.	1,023,000 sq. ft.	75
Area planted	.	.	.	841,500 sq. ft.	60
Boundary fence	.	.	.	4,047 lin. ft.	26

Drain laid	6,498 lin. ft.
Manholes	6
Catch-basins	77
Bridges and culverts	6

A large amount of other work has been partially completed, but cannot be classified.

The usual force engaged upon the care of plantations, roads, walks, etc., has been employed during the year, and the expense of the same has been charged to the appropriation for maintenance.

MUDDY RIVER AND STONY BROOK COVERED CHANNELS.

The former of these remains in bad condition, as was described in the report for 1887. As the town of Brookline contemplates improving the channels of the brooks flowing into Muddy river, so that in time of freshet the discharge of water into the new open channel through the Parkway will come more suddenly than it does at present, in my opinion it is necessary that the covered channel should be repaired and all obstructions removed. The Stony-brook conduit is in good condition, except that the temporary work at the outlet into Charles river has been somewhat damaged by storms. The gate-chamber has been provided with window frames and sashes, the same having been omitted when it was built.

MUDDY RIVER.

The contracts in force at the date of the last annual report have all been completed, except a small portion on section C. The buildings on the Downer-street section were removed early in the summer, and on June 23 a contract was made with Richard D. Shanahan for grading this section. The work was completed in December.

The payments under the above five contracts were as follows, the names given being those of the contractors:

Section A. — James Killian	\$14,896.24
Section B. — Owen Nawn	6,883.05

<i>Section C.</i> —Edward F. Brigham. (Contract not finished.)	\$10,503.92
<i>Section D.</i> —H. P. Nawn	87,304.73
<i>Downer-street Section.</i> —Richard D. Shanahan	4,576.33

All of the above contracts included the excavation of the waterway and the upland and the disposal of the excavated material as filling on ground which required it. The material was not sufficient for doing all the filling required, nor was much of it suitable for foundations for roads and walks.

On October 21, 1891, a contract was made with the Boston & Albany Railroad Company for furnishing and depositing all the filling required on that portion of the improvement north and west of the waterway between Brookline avenue and the city boundary. The work is now in progress. A contract was made on November 28 with Moulton & O'Mahoney for doing all the grading required on that portion of the improvement on the south and east of the waterway, extending as far as Perkins street. This work is progressing favorably. Preliminary plans for the bridge on Brookline avenue having been furnished by Messrs. Olmsted & Co., working plans and specifications were prepared, in consultation with this department, by Mr. A. H. French, engineer for the Brookline Park Commissioners. A contract for building this bridge was made on December 30 with John Sheehan, of Lynn, and work is now in progress under the direction of the Brookline Park Commissioners.

Plans are now being prepared for the Tremont and Bellevue street bridges, and proposals for doing the work will shortly be received.

Arrangements having been made in conjunction with the town of Brookline for the transportation of loam from Basin 6 of the Boston Water-works, a contract was made with James A. Cahill on July 14 for grading a branch railroad from the main line of the Boston & Albany Railroad to the basin; the work was completed in September, at a cost to the city of Boston of \$1,750.18; on September 28 a contract was made with the Boston & Albany Railroad Company for laying the track on the above branch railroad, and for transporting the loam to the Parkway; nothing has as yet

been done for the Boston Park Department under this contract, except the laying of the track.

The drain from the House of the Good Shepherd having been cut off by the removal of the sewer in Downer street, it was extended by a siphon under the waterway, and connected with the sewer in Brookline avenue.

ARNOLD ARBORETUM.

At the beginning of 1891, work was in progress on the grading of the road around the north side of Bussey hill and across the meadow to the Parkway near Centre and Orchard streets, under a contract with Wm. T. Davis. This contract was subsequently amended, so as to include the grading of the road leading from the before-mentioned road to the Parkway near South street. Another contract was made on July 23, for grading a temporary road across the Parkway to Centre street. The work called for by these contracts has been finished. The total amount of material moved under them was 70,035 cubic yards, and the payments were \$24,945.51. There remains a small amount of grading to be done where there has been a settlement of the filling across the meadow. On about 1,700 lineal feet of this road, being the portion of the north side of Bussey hill, the catch-basins and drains have been built, the gutters paved, and the roadway ballasted.

On the road leading from the main drive to Walter street, the catch-basins and drains have been built and the gutters paved. The Water Department has laid a 24-inch water-pipe through this road, but the work not having been completed until recently, the road has not been surfaced; it can be done early in the spring.

FRANKLIN PARK.

Drives, Rides, and Walks. — Glen lane wall has been completed, but the delay in doing it caused by the press of other work for the masons has prevented the completion of the surfacing. The section between Blue Hill avenue and the Entrance road from Columbia street has been entirely finished, while on the section

between the last-mentioned road and the crossing of old Glen road the drains and catch-basins have been built and most of the gutters paved, so that it will require but a short time to complete the work.

The triangular space between Blue Hill avenue, the entrance from Columbia street, and the easterly end of the Greeting has been graded, and the plantations prepared for planting. The circle at the easterly end of the Greeting has been graded. The curbstone has been set, the gutters paved, and the roadway ballasted. Loop road has been finished, and the last section of it was opened to travel on May 24. The walks in the vicinity are nearly finished, and 1,500 lineal feet of granite steps have been purchased for the same. The ride through the Wilderness has been surfaced. Circuit drive is sub-graded from the junction with the road to Columbia street, around the easterly side of the Park to the entrance from Morton street, except a short section across the valley near Canterbury street, where a culvert is to be built, and a section between Canterbury hill and Scarboro' pond which requires filling. On about 800 lineal feet of the Circuit drive the gutters have been paved and the roadway ballasted.

The walk from Ellicottdale to the top of Scarboro hill has been built.

Drainage. — The main drain at the westerly end of the Greeting has been extended so as to drain the swampy ground near by. Drains have been built on the easterly end of the Greeting, on Glen lane and on Circuit drive.

Ellicottdale. — That portion of this ground where the gardener's cottage formerly stood has been finished.

Schoolmaster Hill. — The masonry work of the arbor and of the shelter has been completed, including an additional drinking-fountain. The woodwork of the arbor for supporting vines has been erected, so that this structure is complete, except paving of the walks.

Ponds. — Work is now in progress on the excavation of the proposed Ponds south of Scarboro hill, the material being used for filling on Circuit drive, and for building a dam between the Ponds and Morton street.

Miscellaneous. — A shelter at the carriage-stand at the entrance to the Park opposite Columbia street is in progress of construction. The flock of sheep increased during the year to 168 in number, and in the fall 64 wethers and old ewes were sold for \$350.88. The yield of wool was 792 lbs., which was sold for \$187.74. In May lamp-posts and lanterns with oil lamps were placed along Glen lane by the Lamp Department, and they have since been maintained by that department.

The following table shows the principal items of work completed to date, but it should not be understood as being a complete statement of the work done, as a large amount of labor has been expended on work which cannot be classified :

Driveways completed	.	.	76,000 sq. yds., or 5 miles.
Walks completed	.	.	47,700 " or 6 $\frac{3}{4}$ miles.
Ride completed	.	.	10,500 " or $\frac{3}{4}$ of a mile.
Gutters paved	.	.	15,100 "
Curbstone set	.	.	6,460 lin. ft.
6-in. water-pipe laid	.	.	3,000 "
4-in. water-pipe laid	.	.	1,150 "
Hydrants	.	.	7
Drinking-fountains	.	.	8
Bridge	.	.	1
Gateway	.	.	1
Boundary wall	.	.	4,468 lin. ft.
2-ft. 9-in. brick drain	.	.	706 "
2 ft. \times 2 ft. 6-in. brick drain	.	.	180 "
2-ft. brick drain	.	.	769 "
18-in. pipe drain	.	.	3,020 "
15-in. pipe drain	.	.	2,895 "
12-in. pipe drain	.	.	1,546 "
10-in. pipe drain	.	.	1,844 "
8-in. pipe drain	.	.	7,914 "
4-in. pipe drain	.	.	190 "
4-in. agricultural tile drain	.	.	2,100 "
3-in. agricultural tile drain	.	.	3,520 "

2-in. agricultural tile drain	. . . .	26,713 lin. ft.
1½-in. agricultural tile drain	. . . .	19,700 “
Total drain	. . . .	71,097 “
Manholes	. . . .	41
Catch-basins and inlets	. . . .	143
Open channel for brook	. . . .	2,300 “
Area of ground graded and planted or seeded	.	85 acres.

Eight hundred lineal feet of Circuit drive have been ballasted and covered with crushed stone, while 2,200 lineal feet have been sub-graded and drained.

MARINE PARK.

Filling. — The filling done under the contract with Joseph E. White, dated October 5, 1889, was completed on October 16, 1891. There were deposited 268,450 cubic yards; the amount paid was \$163,754.50. The work of filling north of Broadway under the contract with Perkins & White, dated September 10, 1890, is still in progress, there having been deposited 310,000 cubic yards.

Loam. — On October 12, 1891, a contract was made with Perkins & White for furnishing and placing loam on that portion of the Park south of the south line of Broadway extended. This work is now in progress.

Q-street Bulkhead. — On February 14, 1891, a contract was made with Perkins & White for building a bulkhead on easterly line of Q street, extending northerly 440 feet from East First street, for retaining the filling on the Park. The work was completed in November, at a cost of \$4,985.

Castle-island Bridge. — On July 14, 1891, a contract was made with William L. Miller for building a temporary pile-bridge to connect the mainland with Castle island. Work was begun on August 4, and will be completed early the coming season.

Miscellaneous. — Additional toilet accommodations for men have been provided at the refectory building. One hundred settees have been placed upon the iron pier, and a new boat purchased.

WOOD ISLAND PARK.

Additional land and flats having been taken for an extension of the Park, thereby rendering necessary a revision of the plan, but little work of construction has been done. A topographical survey of the land taken has been made.

The grounds prepared in 1890 have been planted.

CHARLESBANK.

Men's Gymnasium. — The grounds and apparatus having been put in thorough repair, the gymnasium was opened for the season on March 30. Beginning on May 19, the gymnasium was opened in the evening until 9.30 o'clock. For this reason 13 electric arc lights were provided within the grounds. This change has been very popular, the attendance in the evening during the warm weather having been large and very orderly. The nights having become so cool that the evening attendance had largely fallen off, the evening opening was discontinued on November 7. The gymnasium was closed for the season on January 2, 1892. The attendance for the season was 169,591, an average of 707 per day. Of this number there attended after 7 o'clock P.M. 46,548, or an average of 312 per evening.

Experience has shown that further accommodations in the shape of bathing and dressing rooms are very much needed in connection with the gymnasium.

Women's Lavatory Building. — This building was completed early in the season, it having been constructed under the direction of Messrs. Walker & Kimball, architects. It is of two stories, the lower story being devoted to rooms for the boatmen and workmen and a tool-shed. The upper story is occupied as a woman's lavatory and entrance to the women's gymnasium. Toilet accommodations and boxes for depositing clothing are provided, and turnstiles, with a register attached, control the passage to the gymnasium.

Women's Gymnasium and Girls' Playground. — During the spring the gymnastic apparatus furnished by D. A. Sargent, M.D., was

put in place, the frames for supporting the same having been erected the previous season. This apparatus consists of the following pieces :

- 2 balance-swings and frames.
- 2 seesaws, with side-rails.
- 2 seesaws, plain.
- 2 single swings.
- 2 pole ladders.
- 2 perpendicular ladders.
- 4 perpendicular ladders, combined.
- 5 serpentine ladders.
- 1 horizontal rope-ladder.
- 2 perpendicular climbing-poles.
- 4 long inclined poles.
- 4 short inclined poles.
- 4 hanging-ropes.
- 12 swinging-ropes.
- 1 long inclined rope, with attachments.
- 1 set of high parallel bars.
- 1 set of movable parallel bars.
- 2 sets of horizontal bars, adjustable.
- 2 sets of flying-rings, with pulley attachments.
- 2 single trapezes, with pulley attachments.
- 11 travelling-rings, with attachments.
- 2 giant-strides.
- 12 pairs chest-weights.
- 1 set of vaulting-bars.
- 1 set of movable standards for high jumping.
- 98 pairs wooden dumb-bells.
- 98 pairs wooden Indian clubs.
- 98 short wands.
- 25 long wands.
- 24 iron quoits.
- 12 iron hoops.
- 12 jumping-ropes.

A temporary fence was built around the gymnasium to serve as a screen until the trees and shrubs have become grown. Closets for the dumb-bells, wands, etc., also sixteen dressing-booths were built within the inclosure. Three sand-courts were constructed in the rear of the building. The Girls' Playground consists of a smooth lawn around which runs a cinder track an eighth of a mile in length. A wooden shelter with seats overlooking the playground has been built under the direction of Messrs. Walker and Kimball.

The gymnasium and playground were opened on June 1 and closed on October 31. They have been in the charge of the Massachusetts Emergency and Hygiene Association, which has provided for their superintendence and the instruction of those using the apparatus. The attendance during the season in both the ground and gymnasium was 144,539, of which number 13,010 were admitted to the playground on Sundays, the gymnasium being closed on that day. The average attendance on week-days was 1,095.

Brick Walk. — On September 29, a contract was made with Adelaar Phaneuf for paving with brick the walk along Charles street. The work was completed on November 17, and there were laid 3,190 square yards of walk, at a cost of \$4,822.10.

Miscellaneous. — Fifty additional settees have been purchased, and temporary awnings have been erected over a portion of them.

CHARLESTOWN PARKS.

On August 11 a small force was set at work on Charlestown Heights grading the grounds, which work is still in progress.

At the playground, on Alford street, the Street Department is dumping ashes for filling, and considerable material has been received from other parties without expense to the city; the buildings have been removed from the Guild property with one exception, and the vats of the old tannery filled with earth.

MISCELLANEOUS.

Various land-surveys and plans have been made during the year, including those of the land taken for the Dorchester Park on

Dorchester avenue and Adams street, for the proposed extension of the South Boston Parkway, and for a proposed muster-ground. Estimates have been made of the cost of various improvements under consideration by the department.

Respectfully submitted,

WILLIAM JACKSON,
City Engineer.

STATUTES OF THE COMMONWEALTH AND ORDERS
OF THE CITY OF BOSTON CONCERNING
PUBLIC PARKS.

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 301.]

In the Year One Thousand Eight Hundred and Ninety-one.

AN ACT TO AUTHORIZE THE CITY OF BOSTON TO INCUR A
DEBT FOR PARK PURPOSES BEYOND THE LIMIT FIXED
BY LAW.

*Be it enacted by the Senate and House of Representatives in
General Court assembled, and by the authority of the same,
as follows:*

SECTION 1. For the purpose of paying for lands heretofore acquired or which may hereafter be acquired by the city of Boston for public parks, and for defraying the costs and expenses of constructing said parks, said city may, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, authorize its treasurer to issue from time to time, on the request of the park commissioners approved by the mayor of said city, to the amount of three million five hundred thousand dollars, negotiable bonds or certificates of indebtedness, payable in not exceeding fifty years from their date and bearing interest at a rate not exceeding four per cent. per annum, to be denominated on the face thereof, Public Park Loan.

SECT. 2. Said treasurer shall, when authorized by said city as hereinbefore provided, from time to time, when requested as aforesaid, issue and sell said bonds and certificates to the amount requested, retain the proceeds thereof in the treasury of said city,

and pay therefrom the expenses incurred for the purposes aforesaid; *provided, however*, that said board shall not purchase or take, to be paid for from the proceeds aforesaid, lands exceeding in value, as assessed for the year eighteen hundred and ninety, one million dollars; nor shall said treasurer issue in any one year, of the aforesaid bonds and certificates, a greater amount than seven hundred thousand dollars.

SECT. 3. The debt and loan authorized by this act shall not be considered or reckoned in determining the authorized limit of indebtedness of said city under the provisions of section four of chapter twenty-nine of the Public Statutes as modified and amended by section two of chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-five.

SECT. 4. This act shall take effect upon its passage.

[*Approved May 7, 1891.*]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 344.]

AN ACT TO AUTHORIZE THE CITY OF BOSTON TO CONSTRUCT
A SEA-WALL AND EXTEND THE CHARLES RIVER EMBANK-
MENT.

*Be it enacted by the Senate and House of Representatives in
General Court assembled, and by the authority of the same, as
follows:*

SECTION 1. The city of Boston may, by its board of park commissioners, build a sea-wall on the Boston side of the Charles river from the sea-wall of its present park, situated between Craigie's bridge and West Boston bridge, to the sea-wall of said river in the rear of Beacon street in said city, on or within the following lines: Beginning at a point in the southwest corner of the stone wall of the Charles river embankment, or Charlesbank,

thence running southerly by a straight line to a point in Charles river three hundred feet distant westerly from the harbor commissioners' line, measuring on a line perpendicular to the said commissioners' line at its intersection with the southerly line of Mount Vernon street; thence continuing southerly and westerly from the aforesaid perpendicular line, on such lines, curved southerly and westerly from the aforesaid straight line, as said board of harbor and land commissioners shall approve.

SECT. 2. The said city, by said park commissioners, shall fill in the grounds enclosed by said sea-wall, and use the same for the purposes of a public park, in accordance with the provisions of chapter one hundred and eighty-five of the acts of the year eighteen hundred and seventy-five, and may grant the right to use, and the persons to whom such rights may be granted may use, portions of said grounds for boat or bath houses.

SECT. 3. The lines of the sea-wall aforesaid shall constitute the harbor lines, beyond which no wharf, pier, or other structure shall be extended into or over the tide-water of said basin, excepting such bath-houses, boat-houses, and landing-places as the said board of park commissioners shall build or permit to be built, with the approval of the said board of harbor and land commissioners; and when the city of Boston shall have built the said sea-wall and filled in the said grounds as a park, as aforesaid, and so long as the same shall be used as a public park, the Commonwealth will not authorize or permit any person or corporation to construct any extensions or erections from or contiguous to the water line of said park, except with the consent of said park commissioners.

SECT. 4. Said city may take any land or water rights and any flats or lands covered by tide-water, between the present harbor commissioners' line and the line on which the said wall is hereby authorized to be built necessary for the purposes aforesaid, and the damages incurred thereby shall be paid by the city of Boston; *provided, however,* that said city shall not be liable to pay any other damages than the Commonwealth itself would be legally liable to pay.

SECT. 5. Any person whose lands, flats, or rights are taken under authority of this act shall have the same rights and remedies in obtaining damages for such taking as persons injured by the taking of their lands for highways in said city, except as above provided.

SECT. 6. This act shall take effect upon its passage.

[*Approved May 20, 1891.*]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 390.]

AN ACT TO PROVIDE FOR THE APPOINTMENT OF THE CHARLES
RIVER IMPROVEMENT COMMISSION.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECT. 1. The governor, by and with the advice and consent of the council, shall appoint three citizens of the Commonwealth, who, together with the mayor of the city of Boston, the mayor of the city of Cambridge, the mayor of the city of Newton, and the chairman of the board of selectmen of the town of Watertown, for the current year eighteen hundred and ninety-one, shall constitute a commission on the improvement of Charles river, and shall serve without compensation.

SECT. 2. Said commission shall consider what improvement can be made in the Charles river basin, between the dam at Watertown and the Charles river bridge in Boston, the bridges over said river, and the parks along the banks thereof, in said cities and town; and shall consider such other matters relating to the general commercial interests of the Commonwealth and of said cities and town in said river, as they may deem proper, and shall report their investigations to the next general court, and to each succeeding general

court during the continuance of the commission. Said commission may expend a sum not exceeding three thousand dollars in making their investigations, which sum shall be paid from the treasury of the Commonwealth, on properly approved vouchers presented to the auditor, in the same manner as other claims against the Commonwealth. The term of office of the commissioners provided for in this act shall expire within two years from the date of the passage thereof.

SECT. 3. This act shall take effect upon its passage.

[Approved June 10, 1891.]

CITY OF BOSTON,
IN COMMON COUNCIL, May 18, 1891.

Ordered, That the city treasurer issue from time to time, on the request of the park commissioners, approved by the mayor, to the amount of seven hundred thousand dollars in each year, and to the total amount of three million five hundred thousand dollars, certificates of indebtedness payable thirty years from their date, and bearing interest at the rate of four per cent. per annum, to be denominated on the face thereof, "Public Park Loan."

And the board of park commissioners is hereby authorized to expend the proceeds of said certificates for paying for lands which they have heretofore acquired, or may hereafter acquire, for the city for public parks, and for defraying the costs and expenses of constructing said parks; but the said commissioners shall not purchase or take land exceeding in value, as assessed for the year eighteen hundred and ninety, one million dollars.

Ordered, That any premiums or gain obtained by the treasurer in the negotiation or sale of said certificates of indebtedness shall be paid to the board of sinking funds commissioners for the redemption of the debt.

Passed. Yeas, 57. Nays, 4. Sent up for concurrence.

In Board of Aldermen, May 18, concurred. Yeas, 10. Nays, none.

[Approved by the Mayor May 20, 1891.]



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